

MIDWEST FLYER

MAGAZINE

JUNE/JULY 2022



Published For & By The Midwest Aviation Community Since 1978

midwestflyer.com

ONE UNIQUE AIRFIELD, TWO UNIQUE EVENTS!

FREE TO EVERYONE! FREE LUNCH!

With both a control tower and grass runways, Milwaukee's Timmerman Airport provides a flying experience like none other. Join us for one of our FREE, fun and family-friendly events. You'll leave with new skills, new friends—and maybe even some extra cash!

FLOUR DROP CONTEST
10AM, JUNE 4, 2022

\$200 PRIZE!

SPOT LANDING CONTEST
10AM, SEPT 10, 2022

\$200 PRIZE!



THE 42ND EDITION

PILOT

Bahamas & Caribbean Editions

GUIDES

The only **COMPLETE RESOURCE**
for *flying the islands.*



*Exclusive
Online Access*

Free one-year
subscription to
AOPA Pilot Guide
content online

BUY NOW

AOPA.ORG/PILOTGUIDES



ON THE COVER: One of many RV formation teams in the United States. Van's Aircraft, manufacturers of RV kits, will celebrate its 50th Anniversary at EAA AirVenture Oshkosh, July 25-31, 2022. With nearly 11,000 flying airplanes, Van's RV aircraft are the standard for homebuilt sport planes. Van's Aircraft, Inc. was founded by Richard "Van" VanGrunsven in 1973. Van's RV series of aircraft, from the single-seat RV-3, to the latest RV-14, are all-aluminum, low-wing monoplanes of monocoque construction (www.vansaircraft.com). *Photographer Unknown*

HEADLINES

AOPA Hosts Sixth Annual Hoover Awards Gala	22
EPA's 2030 Deadline To Replace 100LL Was Discussed At SNF	22
Wisconsin Aviation Expands Its Aircraft Maintenance Services With The Acquisition of Beaver Aviation's Assets.....	30
JetBlue Further Expands To Midwest With Daily Nonstop Service To Milwaukee From Boston and New York.....	31

COLUMNS

AOPA Great Lakes Regional Report: AOPA's Airport & State Advocacy Team... A Membership Benefit Like No Other! - <i>by Kyle Lewis</i>	21
Ask Pete: Portable Radios, Carb Heat, Backseat Drivers & More! - <i>by Pete Schoeninger</i>	14
Aviation Law – On Your Side: Aircraft Hangar Lease: What Can A Tenant Expect? - <i>by Gregory J. Reigel, Esq.</i>	7
Destinations:	
• Splashing Around Northwest Montana - <i>by Yasmina Platt</i>	24
• A One-Way Flight From The Midwest To The West Coast - <i>by Kreg Anderson</i>	26
Dialogue: No Better Time Than The Present - <i>by Dave Weiman</i>	5
From AOPA Headquarters: DAYS LIKE THIS... Come hang out with us this year! - <i>by Mark Baker</i>	20
High On Health: Arthritis - <i>by Dr. Bill Blank, MD</i>	17
Instrument Flight: VFR Into IMC - <i>by Michael J. (Mick) Kaufman</i>	10
Minnesota Aeronautics Bulletin:	
• Minnesota eases registration requirements for sUAS owners - <i>by Michael Johnson</i>	32
• Airport Development Funding Overview - <i>by Arika Johnson</i>	33
Pilot Proficiency: Expecting the Unexpected: Beating the "Startle Effect" - <i>by Richard Morey</i>	12
The Left Seat: What shape are you in? - <i>by Bob Worthington</i>	18
Wisconsin Aeronautics Report:	
• Cornucopia Airport Now Open to the Public - <i>by Hal Davis</i>	28

FEATURES

The Genesis For Schweiss Doors Began On A Dance Floor Four Decades Ago! - <i>by Pat Schmidt</i>	44
Morning Mission - <i>by Dean Zakos</i>	48

SECTIONS

Aircraft.....	52	Motion Pictures	58
Awards & Recognition	34	People In The News.....	42
Calendar	54	Products & Services.....	44
Classifieds.....	56	WATA Difference	30
Letters To The Editor	43 & 51		



24



40



44



53

No Better Time Than The Present

by Dave Weiman

If it is one thing we got from this lousy pandemic we've just gone through, it is a greater appreciation for family and friends.

While many parents and their children may have grown closer to one another because of having to homeschool, the complete opposite occurred at the workplace when many of us were required to work from home and socializing with friends ceased to exist.

Learning at home online and virtually was difficult for both children, parents, and teachers. Not participating in sports and other extracurricular school activities, and not seeing friends, was difficult.

For us pilots, the pandemic meant learning how to disinfect our aircraft after each flight without damaging our avionics and trying to keep current without infecting others in the event we had covid or vice versa. It has been a challenge for all of us, and unfortunately for most, the pandemic has taken the lives of some family members and friends.

Hopefully now, we are done with the major impacts of covid, and can once again enjoy life as we once knew it, providing we continue to take what we feel are necessary and reasonable precautions. Regardless, I think we all gained a greater appreciation for life and the people around us.

Realizing how fragile life can be, and ready to resume life as it existed prior to the pandemic, a few of us pilots got together recently for brunch at the *Jet Room Restaurant* at Wisconsin Aviation, Dane County Regional Airport (KMSN), Madison, Wisconsin. This was a good start to what we hope will be a fun-filled and rewarding flying season ahead.



Whatever you do, don't put anything off you want to do or accomplish, thinking there will be plenty of time later on, as something else might just come up that will make that impossible.

Friends gathered April 29, 2022, at the "JET ROOM," located at Wisconsin Aviation, Dane County Regional Airport, Madison, Wisconsin (KMSN): (L/R back row): Tom Kretschman, owner of Sugar Ridge Airport, Verona, Wis.; Jeff Baum, President/CEO, Wisconsin Aviation, Inc.; Dave Weiman, Editor/Publisher, *Midwest Flyer Magazine*; Al Whitaker, attorney, private airport owner and former UW football player. (L/R front and center): Photojournalist Don Winkler and his wife, Carol Winkler. *Midwest Flyer Magazine Photo by Gustav Klokner*

AIRPORT PLANNING, ENVIRONMENTAL,
DRONE TECHNOLOGY, ARCHITECTURE,
DESIGN AND CONSTRUCTION

**SOLVING YOUR MOST
COMPLEX AIRPORT
CHALLENGES.**

Building a Better World for All of Us®
Engineers | Architects | Planners | Scientists

Kaci Nowicki | 651.894.2508 | sehinc.com/subscribe

SEH

EDITOR/PUBLISHER

Dave Weiman

PRODUCTION DIRECTOR

Peggy Weiman

PHOTO JOURNALISTS

Chris Bildilli, Brad Thornberg

CONTRIBUTING EDITORS & PHOTOGRAPHERS

Kreg Anderson	Nick Meyer
Randy Arneson	Richard Morey
Mark Baker	Yasmina Platt
Dr. Bill Blank	Gregory J Reigel
Hal Davis	Pat Schmidt
Max Haynes	Pete Schoeninger
Michael Johnson	Jane Seeber
Arika Johnson	Rich Wellner
Michael Kaufman	Bob Worthington
Gustav Klokner	Dean Zakos
Kyle Lewis	

ADVERTISING/EDITORIAL

Call: 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 2022 by Flyer Publications, Inc. All rights reserved. Nothing in whole or in part may be reproduced without the written permission of the publisher.

READERSHIP

Each issue is published online at MidwestFlyer.com and available to readers free of charge to maximize circulation to aircraft owners (single-engine piston thru corporate jets), pilots (Private thru ATP), aircraft technicians, fixed base operators, flight schools, technical colleges and universities, airports and airport officials, and government agencies.

MIDWEST FLYER MAGAZINE
6031 Lawry Court
Oregon, WI 53575-2617 USA
www.midwestflyer.com

Index To Advertisers

Academy College.....	37	Metropolitan Airports Commission.....	7
Aircraft Avionics Sales & Service.....	23 & 61	Mid-Continent Aircraft Corp.	56
Aircraft Interiors.....	57 & 60	Midwest Flyer Magazine	14, 16, 30 & 60
Aircraft Owners & Pilots Association (AOPA) ..	3	Milwaukee County's Timmerman Airport.....	2
Aircraft Rental	57 & 60	Miminiska Lodge, Ontario, Canada	56 & 59
Aircraft Sales.....	56 & 57	Minneapolis-St. Paul International Airport	7
Aircraft Maintenance.....	38, 57 & 60	Minnesota Aviation Trades Ass'n (MATA)	27
Aircraft Window Repairs	42	Minnesota DOT Office of Aeronautics ...	32 - 33
Airlake Airport	7	Minnesota Petroleum Service.....	36
AIR-PROS.com.....	56	Minnesota Seaplane Base For Sale	56
Airways Aviation Center, Inc.	38	Minnesota Seaplane Pilots Association.....	23
Anoka County - Blaine Airport.....	7	Mooney Aircraft Spatial Interior Upgrades.....	57
Aspen Avionics	23	Morey Airplane Company	56
Avfuel Corporation	57	NewView Technologies, Inc.....	23 & 30
Aviation Insurance Resources	56	North Allie Island.....	43
Avidyne	23	PS Engineering Incorporated.....	23
Beaver Aviation, Inc.	30	Racine Commercial Airport	30
Becher-Hoppe	41	Ray Fagen Memorial Airshow.....	54
Bolduc Aviation Specialized Services.....	9 & 30	Red Wing Aviation (RWA).....	37
Bolton & Menk, Inc.	13	Rotax.....	60
Brackett Aircraft Co., Inc.	60	St. Louis Downtown Airport.....	39
Canada Fishing Fly-Out.....	56 & 59	St. Nicholas Brewing Company, MDH.....	21
Cape Air	37	St. Paul Downtown Airport.....	7
Commut Air	37	Schweiss Doors	16
Cooper Engineering	56	Shell	60
Crystal Airport	7	Short Elliott Hendrickson Inc. (SEH).....	5
Eagle Fuel Cells.....	27	SkyWest Airlines	37
Fagen Fighters WWII Museum	54	Southern Illinois Airport.....	21
Flying Cloud Airport	7	Southern Wisconsin Regional Airport.....	56
Fond du Lac Skyport.....	30	Spring City Aviation.....	56
Garmin	23 & 57	Stratus by Appareo	23
Go Jet Airlines.....	37	Thunderbird Aviation.....	37 & 60
Golden Age Aeroworks	25	Tricor Insurance	11
Hangars For Rent	10 & 56	Trig	23
Horizon Aircraft Engine Services, Inc.	9 & 30	Trimcraft Aviation	30
Jet Air Group.....	30	United Express.....	37
Jet Room Restaurant	17	West Bend Air, Inc.	30
J.P. Instruments (JPI)	23	Westwood PS	14
Lake Elmo Airport	7	Wilderness North	56 & 59
Leading Edge Air Foils LLC	60	Wiley Properties.....	10
Leineweber Law LLC	56	Wisconsin Aviation, Inc.....	30, 56 & 57
Lynx	23	Wisconsin Aviation Trades Assn (WATA).....	30
Maxwell Aircraft Service.....	10	Wisconsin DOT Bureau of Aeronautics .	28 - 29
Mead & Hunt.....	15	Worthington, Bob (One Pilot's Story).....	18

ACT NOW....

FREE SUBSCRIPTION OFFER!

Please encourage your friends, colleagues and employees to sign up for a **FREE SUBSCRIPTION** at MidwestFlyer.com. Click **SUBSCRIBE NOW!** We also accept "group" subscription requests from flying clubs, flight schools, fixed base operators and EAA Chapters. For additional information, email dave@midwestflyer.com

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

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 and other publications and materials regarding any flight or other procedures discussed herein. Use of any information contained herein is at the reader's own risk and discretion.

Aircraft Hangar Lease: What Can A Tenant Expect?

by Gregory J. Reigel, Esq.

© Copyright 2022. All rights reserved!

If you own an airplane, you probably keep it in a hangar. You may own the hangar and lease the airport property beneath the hangar, you may lease both the hangar and the land beneath it, or you may simply lease space within a hangar that is owned/leased by a third-party. And the terms of your hangar lease will depend upon your specific leasing arrangement. In order to protect you and your aircraft, you need to pay careful attention to the terms of your lease agreement.



Greg Reigel

Here are some of the key lease terms and issues to consider when negotiating your lease:

Rent. While rent is usually one of the first terms a potential tenant considers, it can be a little more complicated than simply “how much do I pay per month?” First, the lease may require a set monthly or annual rental payment for the property. This is often referred to as “base rent.” However, this is not the bottom line for what the lease will cost.

Additional fees which increase and can exceed the base rent include assessments, taxes, and license fees to name a few. It is imperative that you determine up front what additional fees for which you may be responsible and precisely how those fees are calculated. Depending upon the total of the additional fees, you may be able to negotiate the base rent amount.

Similarly, if the lease provides the lessor with the ability to raise or decrease the rent, be sure to understand when this can happen and upon what such a change is based. Although you may not be able to control whether or not an increase or decrease in the rent is imposed, by understanding the circumstances upon which this change may take place, you will be able to plan for and possibly forecast this change in rent.

Lease Term. This provision deals with the duration of the lease. Specifically, you need to know when the lease actually starts. This may be important when new construction of a hangar, building or other improvements are involved which may prevent your use of the property until the work is completed. To obtain the fullest use of the property, you may want the actual lease term to begin when construction is completed and you are actually able to put your aircraft in the hangar, rather than making lease payments during

More than 8 percent growth in operations across the MAC General Aviation Airports in 2021



Proud sponsor of the annual AirExpo at Flying Cloud Airport - July 23rd and 24th and Pan-o-Prog Fly-in Breakfast at Airlake Airport - July 10th

Please visit metroairports.org for information about MAC General Aviation Airports

construction even though you do not have full use of the property.

It is also important to understand how long the lease will last. Is the lease month-to-month or for a set number of months? Further, is the lease renewable? If so, will it renew automatically, or must you exercise the option of extending or renewing the lease? If you must exercise an option, make sure you know how far in advance of the lease's termination you must give notice that you are extending or renewing the lease.

Knowing the potential duration of your lease becomes especially important in situations where the lessor does not have an obligation to renew or extend the lease. If the lease does not provide otherwise, a lessor could have the ability to not renew or extend a lease even after you have invested in building a hangar or other improvements to the property. Although this may seem unfair, the language of the lease will govern your rights. Thus, understanding this information up front is essential because it will allow you to assess the financial feasibility of recouping any investment you may wish to make in the property during the lease.

Use of the Property. The lease will likely have language specifying or limiting the types of activities for which the property may be used. Make sure the terms of the lease allow you to use the property the way you have planned. If you plan to sub-lease part of the space to another aircraft owner or intend to run some type of business from the property, you will need to ensure that the lease allows your intended use. This may be done with language which specifically allows your intended use, or with general language that will allow a wider variety of uses, including your intended use.

After you sign the lease, if the language of the lease does not allow you to use the hangar in the manner you wish, you may need to obtain permission from the lessor.

It is much easier to include the appropriate language in the lease prior to signing, rather than attempting to change the lease or obtain the lessor's permission after the fact. Thus, you will need to have a good idea as to how you intend to use the property, both at the beginning and throughout the term of the lease.

Also keep in mind that the Federal Aviation Administration ("FAA") has a policy on aeronautical use of hangars that applies to airports where the airport sponsor receives funds from the FAA through the Airport Improvement Program ("AIP"). If your hangar is on an airport that does not receive AIP funds, then any restrictions or limitations on use of your hangar would likely be dictated within your lease with the airport owner or operator.

However, even if the lease does not contain AIP restrictions and limitations, once the airport sponsor receives AIP grants and airport land designated for aeronautical use is made available for construction of hangars, the hangars built on the land are subject to the airport sponsor's obligation to use the land for aeronautical purposes.

According to the FAA, permitted aeronautical uses for hangars include:

- Storage of active aircraft.
- Final assembly of aircraft under construction.
- Non-commercial construction of amateur-built or kit-built aircraft. In expanding its policy to include all amateur/kit-built construction, rather than just final assembly, the FAA recognized that "[i]t may be more difficult for those constructing amateur-built or kit-built aircraft to find alternative space for construction or a means to ultimately transport completed large aircraft components to the airport for final assembly, and ultimately for access to taxiways for operation."

- Maintenance, repair, or refurbishment of aircraft, but not the indefinite storage of non-operational aircraft. The FAA does not establish an arbitrary time period beyond which an aircraft is no longer considered operational. Rather, the FAA leaves it to the airport sponsor to decide whether a particular aircraft is likely to become operational in a reasonable time; and

- Storage of aircraft handling equipment (e.g., towbars, glider tow equipment, workbenches, and tools and materials used in the servicing, maintenance, repair or outfitting of aircraft).

Non-aeronautical use within a hangar that is used primarily for aeronautical purposes, may still be permitted, provided that use does not interfere with the aeronautical use of the hangar. What does that mean? The FAA will consider certain uses to be interfering with the aeronautical use if they:

- Impede the movement of the aircraft in and out of the hangar or impede access to aircraft or other aeronautical contents of the hangar.
- Impede access to aircraft or other aeronautical contents of the hangar; or
- Or if vehicles are stored in violation of the airport sponsor's rules and regulations, lease provisions, building codes or local ordinances.

Note: The hangar owner may park a vehicle inside the hangar while he or she is using the aircraft and the FAA will not consider that to be displacing the aircraft.

But what about that "pilot lounge" or "man/woman cave" within the hangar? Is that a permitted use? Unfortunately, the FAA's policy does not provide a "bright line" answer. According to the policy, the FAA "differentiates between a typical pilot resting facility or aircrew quarters versus a hangar residence or hangar home. The former is designed to be used for overnight and/or resting periods for aircrew, and not as a permanent or even temporary residence."

Although the FAA then goes on to state that a hangar may not be used as a residence, it does not explain what that means. As a result, in the absence of a clear definition, it is likely that this type of determination would be made on a case-by-case basis. So, while some form of pilot lounge or office is likely permitted, at what point that area within the hangar becomes an unpermitted, non-aeronautical use will be decided based upon the facts of each case.

Buildings and Construction. If you are leasing property

without a hangar or buildings and you intend to have the hangar, buildings or other improvements constructed yourself, you will need to make sure the lease protects this investment. First, you will want the right to remove the hangar, buildings, or improvements from the property upon termination of the lease. Although this may not provide you with the full value of your investment in the property, it will allow you to recoup some of your equity.

If you are financing any of the construction, the bank or other source of financing will probably want the ability to mortgage or otherwise use the improvements as security for the financing. The lease will need to allow this. If you are arranging financing prior to signing the lease, you may wish to provide the bank or financing source with a copy of the proposed lease to confirm that the lease allows them to protect their financing.

General Provisions. In reviewing the lease, make sure the lease refers to parties consistently. Names of persons or entities should be spelled correctly and where used should refer to the appropriate party. If the lessee will be an entity, such as a partnership or corporation, the lease will need to refer to that entity as the lessee and not to you individually. To the extent that you as an individual are required to sign the lease, you will want the lease to refer to you in your capacity as an

officer or partner of the particular entity who is the lessee. However, if a personal signature is required as an additional lessee or as a guarantor, this distinction may still be required, but may ultimately be immaterial to your personal liability under the lease.

Finally, it is essential that you carefully review all of the provisions of any aircraft hangar lease before you sign. Consultation with an experienced aviation attorney beforehand can keep your dream from turning into a nightmare. By taking the time to understand the hangar lease you are signing, you can avoid being left hanging.

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. He has more than two decades of experience working with airlines, charter companies, fixed base operators, airports, repair stations, pilots, mechanics, and other aviation businesses in aircraft purchase and sales transactions, regulatory compliance including hazmat and drug and alcohol testing, contract negotiations, airport grant assurances, airport leasing, aircraft-related agreements, wet leasing, dry leasing, and FAA certificate and civil penalty actions. For assistance, call [214-780-1482](tel:214-780-1482), email: greigel@shackelford.law, or Twitter [@ReigelLaw](https://twitter.com/ReigelLaw) (www.shackelford.law). □

Over 40 years of reliable
maintenance!

Kevin Dunrud & Tim Hieb
Owners

info@bolducaviation.com

Horizon
AIRCRAFT ENGINE SERVICES, INC.
dba Bolduc Aviation

Hours of Operation

Monday - Friday
8:00 AM - 4:30 PM

bolducaviation.com
763 - 780 - 1185

Specializing In Engine Overhaul & Repair

Services include (but are not limited to):

- Precision electronic engine component balancing
- Cylinder overhaul and repair
- Cylinder grinding .010, .015
- Continental starter adapter overhaul
- Cleaning of all engine parts
- Magnaflux and zygo inspection of parts
- Rebush and line boring of counterweight bushings
- Reconditioning of connecting rods and rocker arms
- Overhaul and/or 500-hr inspection of magnetos, float type carburetors and turbo controllers
- Ultrasonic inspection of Continental crankshafts
- Reconditioning of crankcases and crankshafts
- Engine inspections and test running



VFR Into IMC

by Michael J. "Mick" Kaufman

© Copyright 2022. All rights reserved!



Michael Kaufman

I recently received a text message from a friend, who found a Piper PA-32 Cherokee Six he wanted me to look at. While looking at the aircraft's description, I noticed that the N-number was similar to the N-number of an aircraft that another close friend and his passenger were killed flying in 1984, when they flew into instrument flight conditions unexpectedly.

A study done in 1954 by the University of Illinois entitled "178 Seconds To Live," referred to a flight into instrument meteorological conditions (IMC) by a VFR pilot. I now have an interesting topic for this article and, hopefully, some advice for pilots who could find themselves in this situation.

I wish I could say that this is a cut-and-dried situation, and if you followed my instructions, you'll be okay, but unfortunately, there are lots of variables that can come into play.

It is sometimes suggested that when a VFR pilot encounters instrument flight conditions that he should make a 180-degree turn and climb or descend depending on the circumstances. This can sometimes be a difficult flight operation as "vertigo" can set in.

I can say I have yet to find a pilot who can look me in the eye and say they have never experienced vertigo. A well-respected former FAA safety inspector and good friend of mine, Jimmy Szajkovics, used to travel around Wisconsin doing safety seminars with a vertigo chair, and he made believers out of many pilots.

First, let's look at the type of aircraft you are flying and the equipment you have onboard, as well as your knowledge of

using this equipment.

For instance, my J-3 Cub has an altimeter, airspeed indicator, compass, and engine gauges. There is not even a turn coordinator, but it does have a coordination ball. My guess, in days long gone, a pilot used a paper chart and would follow roads or railroad tracks. There was very little controlled airspace at that time, and one mile/clear of clouds was the rule, now classified as Class G airspace. Cruising at 60 mph gave you plenty of time to avoid towers and obstacles, which were few to be found. My first trip to the EAA Fly-In in Rockford, Illinois, was a trip like that in an Aeronca L-3. Today, such a trip would be a lot scarier with cell phone towers everywhere.

A few weeks ago, I finished my online flight instructor refresher course, which I usually do in person, but because of covid concerns, I opted for an online course this time. (I would recommend "Aviation Seminars" for anyone needing a refresher or looking to acquire a new rating.)

The topic of "VFR into IMC" was emphasized in the seminar in a scenario using a "technically advanced aircraft." Would John F. Kennedy, Jr. have survived if he had known how to use his autopilot? The consensus is yes!

The best procedure to survive a situation of being VFR and flying into IMC is to avoid the situation entirely, but that's not always possible. We have all penetrated into weather a bit longer than we should have, or the weather just dropped in on us without any warning, so we need to be prepared, just in case.

I was training with an instructor for my commercial pilot certificate out of Kenosha, Wisconsin some 50-plus years ago, above a scattered cloud deck, when lake effect fog moved in from Lake Michigan and there was no place to go. Everything was down within reason, and we ended up declaring an emergency and doing an ILS approach into General Mitchell International Airport in Milwaukee. Below minimums, I would have called it a "zero-zero" landing. I was not yet



NEW & USED PROPELLERS FOR SALE
REPAIRS ★ EXCHANGES ★ OVERHAULS
★ GOVERNOR EXCHANGES ★

Maxwell Aircraft Service
Propeller Rating Class 1 & 2, Limited Accessory FAA Approved Station # UF2R211L
CRYSTAL AIRPORT, MINNEAPOLIS, MINNESOTA
CALL 1-800-964-4247 OR (763) 533-8611



Mike Wiley
 Office: 763.425.2315
 Mobile: 612.490.7052

Hangar Spaces Available at Crystal Airport

- Separately partitioned, T-shaped aviation hangars
- Hard-surface runway and control tower
- Fueling and maintenance available onsite
- Site dimensions starting at 42 ft x 34 ft

instrument rated, but my instructor was. Some paperwork was required after landing, but we survived!

The term “scud running” has been around since the word airplane was added to our vocabulary, and it will be around forever. Many pilots have died trying it, and I must say, I have done it a time or two, but would not recommend it, unless it is the last resort with no place to land. If you are flying a high-performance or technically advanced aircraft and have an autopilot, I would turn on the autopilot and climb, even if that meant entering clouds. Put distance between you and the ground as soon as you can. There is far less chance of colliding with another aircraft than an obstacle on the ground (big sky, little airplane theory).

Now, it is time to confess your problem. ATC will help you... Just don't hesitate to use the “E-word.” The frequency to start with is 121.5 Mhz. If you are instrument rated, do the same thing, but don't wait too long... the ground or obstacles can smack you if you hesitate. Statistics show that of the accidents related to VFR into IMC, 43% of these pilots held an instrument rating.

As mentioned earlier, there is not a solution that will work for every situation of VFR into IMC, but I will give you a few points to consider.

If you are trapped, you must make a decision (i.e., aeronautical decision making). Don't think about the Federal Aviation Regulations (FARs)... This is an emergency and survival is the goal. A bad decision may have gotten you into this weather, or it could have just dropped in on you, but you must make a decision based on your best judgment at the time.

What type of aircraft are you flying? If it is a helicopter, a Piper Cub or some other STOL aircraft, you might find a nearby airport or a field to land in.

Are you instrument rated or flying a technically advanced aircraft? If you are familiar with the autopilot, you should initiate a climb. Pitch up somewhere between 5 and 10 degrees on the attitude indicator (single-engine) and fly straight ahead, depending on your aircraft. Do not make a climbing turn as this can induce vertigo. If you are in mountainous terrain, that may be different. Fly the airplane first – Aviate, Navigate, Communicate. If you continue to climb, you have a good chance of getting between cloud layers or on top of an overcast. Once on top or between layers, you then need to decide again on where you want to go, so “Navigate.” This is where you may want to make a 180-degree turn if you know there is good weather behind you, but this is not always the case – you might be trapped. Let's Communicate... ATC is there to help you. If you are a VFR pilot, don't hesitate to declare an emergency, and use the “E word.” If you are an instrument-rated pilot, stay VFR if possible, and ask for some advice on where to go and then get an instrument clearance.

Analyze your situation. How is your fuel supply? Is there icing or thunderstorms in the area? Your survival is based on your experience, your ability to make good decisions, and to

remain calm.

To sum it up, if you encounter IMC while flying VFR or lose situational awareness, always consider a climb as an option. American Airlines flight #965 is a good example. Study that accident here: <https://code7700.com/case-study-american-airlines-965.htm>.

“Altitude is *almost* always your friend.”

EDITOR'S NOTE: Michael J. “Mick” Kaufman is a Certified Instrument Flight Instructor (CFII) and the program manager of flight operations with the “Bonanza/Baron Pilot Training” organization. He conducts pilot clinics and specialized instruction throughout the U.S. in many makes and models of aircraft, which are equipped with a variety of avionics. Mick is based in Richland Center (93C) and Eagle River, Wisconsin (KEGV). He was named “FAA's Safety Team Representative of the Year” for Wisconsin in 2008. Readers are encouraged to 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. □

TRICOR[®] INC.
INSURANCE

**GET CLEARED
FOR TAKEOFF**
from our aviation insurance experts

**ONE STOP FOR ALL YOUR AVIATION
INSURANCE NEEDS**

(800) 210-8242 • TRICORINSURANCE.COM

LEADING PROVIDER OF PERSONAL & BUSINESS INSURANCE

Expecting the Unexpected: Beating the “Startle Effect”

by Richard Morey

The FAA is particularly good at identifying accident trends and developing Safety Team training to address the underlying issues. Lately, the “Startle Effect” has received a great deal of attention from Jurg Grossenbacher, the FAAS Team Lead for the Flight Standards District Office (FSDO) in Milwaukee. This article, in part, builds upon the FAAS Team recommendations; the rest is based upon my experiences. To maintain consistency and fidelity to the FAAS Team’s goals, I have used the recommended wording for the pre-takeoff briefing.



Richard Morey

What we do not expect, and what we have not prepared for, will be startling when it occurs. Being startled by a safety-related action or occurrence during flight operations results in a slower reaction time, as our mind categorizes the unexpected as a potential threat. Fight, Flight, or Freeze is the normal response to a threat, but in aviation Freeze is not an acceptable response. Freezing in a critical phase of flight has resulted in accidents. Thus, the goal is to avoid being startled in the first place. The question is how do we accomplish this? The answer is in the title: “Expect the unexpected and plan for it!” “Her ad-lib lines were well rehearsed...”

Knowing what to do in any situation saves us the time required to think of a response. When time allows, pilots use “checklists” to assist with troubleshooting issues and reducing response time. Time does not always allow us to use checklists, however. Consider taking your preparation to the next level. Knowing that something can happen and then expecting it to happen takes the startle away and gives the pilot a plan of action that has already been decided. This saves critical time. For example, I often teach in Cessna 152s. It is not uncommon for a door to pop open on takeoff in these aircraft. I was always startled by this, until I started telling myself to expect the door to pop open on each takeoff. Having “the door will pop open” as part of my mental pre-takeoff briefing made all the difference. After that, I was no longer startled when it occurred. Actively expecting the door to open, and making it part of the takeoff experience, took the startle out of the equation. A door opening on takeoff should not be a safety issue, as the pilot should be able to continue flying the airplane. Unfortunately, the distraction caused by this event, and the lack of preparation to deal with such events in general, has contributed to accidents in the past, some fatal.

Pre-takeoff Briefings

Being startled anytime during flight is not desirable, but

during a critical phase of flight is particularly undesirable. It does not take much imagination to come up with scenarios during takeoff or landing that could cause a startle effect. During my multiengine flight training, my instructor and father, Field Morey, emphasized the importance of “briefing the takeoff.” The Pilot’s Operating Handbook provides procedures for various types of engine failure during takeoff and climb out. Multiengine pilots must have these procedures memorized. Of these procedures, the immediate action items are required to be memorized and practiced until they become second nature. Not responding quickly and correctly to an engine out in a piston twin-engine aircraft could easily result in catastrophe. Dad also gave me this bit of advice when it comes to losing an engine on takeoff in one of these types of aircraft: *“No matter what the book says, if you lose an engine under pattern altitude, throttle back the good engine and land it straight ahead. You will walk away from that landing. If you try to nurse it around the pattern on one engine, you may well not walk away.”* Every time I take off in a twin-engine aircraft, I review his words. They are part of my takeoff brief.

Single-engine pilots have less options and, as such, the pre-takeoff briefing has often been neglected in their training. Having an engine problem during takeoff, be it total loss of power or a reduction of power, should be anticipated with action plans reviewed prior to each takeoff. The following are the pre-takeoff briefings recommend by the Milwaukee FSDO FAAS Team. I have added comments.

“If there is any issue on takeoff and the aircraft is still on the runway, reduce power to idle, apply maximum braking, and hold centerline.” The goal of this being to stop the aircraft on the runway, but if this results in an overrun of the runway, so be it. Maximum braking does not mean locking up the brakes. Skidding or blowing a tire is not recommended, as skidding is not as effective at stopping an aircraft as controlled braking. Blowing a tire at touchdown speed may well result in an off-runway excursion.

“If an engine fails after rotation with runway remaining, immediately throttle to idle, and land.” This includes lowering the nose and establishing best glide. Apply maximum braking as described in the aborted takeoff scenario and hold centerline.

“If there is an issue during climb out and below 1000 feet AGL, pitch for best glide and land straight ahead, +/- 30 degrees of heading.” Be aware of the wind direction and if possible, land into the wind.

There is much debate as to what to do at what altitude. Each pilot must consider the performance of their aircraft, the wind, the surrounding terrain, and their skill level before making that decision. The important thing is, make this decision prior to taking off. Know where you will land if the engine goes silent. You should consider making small adjustments to your plan of action dependent on unforeseen

conditions, but the basic plan should be adhered to.

Having grown up in an aviation family, I have been privileged to listen to the stories of aviation pioneers. Listening to my grandfather, Howard Morey, and his good friend, Steve Wittman, talking about the old days was a rare treat and very instructive. Both Mr. Wittman and my grandfather had learned to fly in aircraft that were far less reliable than today's aircraft. As a result, they were always looking for and keeping track of potential emergency landing fields. Their expectation was that the engine would fail because they had both experienced multiple-engine failures in their training. The likelihood of an engine failure is far less than it was back in the 1920s and '30s but is still possible. Taking a lesson from those who survived multiple engine failures just seems prudent for today's pilots.

Keep in mind that it is far more likely that you will experience a partial engine failure or loss of power, than a complete engine failure. In this case, your actions need to consider the degree of loss.

I once lost about 10-15 percent power on takeoff with a student in a C152. This happened on climb out and at about 100 feet AGL, and was later determined to be caused by one of the magnetos failing. The aircraft continued to climb, but at a lesser rate. I chose to fly the pattern and land, rather than making an off-field landing. Had the power loss been more substantial, I may well have chosen to land it straight ahead.

Landings offer many opportunities to become startled. Just like takeoffs, it is important to plan ahead. If each landing is approached with the idea that a go-around may be required, then when it is required, it will be expected.

When turning final, I make it a habit to scan the runway and the surrounding areas for animals, vehicles, or other aircraft. I particularly pay close attention to high-wing aircraft snuggled up to the hold short line, or any aircraft that I cannot "make eye contact with." If the pilot of the aircraft cannot see

final approach, the likelihood of them taxiing onto the runway is greater. For this reason, I teach my students to hold further back on the taxiway, where they can observe both base and final approach to the runway of which they are holding short.

By conducting a pre-takeoff briefing, the likelihood of pilots being "startled" by issues on takeoff are minimized. Actively having the expectation of something going wrong, rather than just the knowledge of it, and having an action plan thought out ahead of time, will minimize potential startle/freeze response and maximize the possibility of a good outcome. Be safe, expect the unexpected, and plan accordingly!

Safety seminars on the "Startle Effect" will be held throughout Wisconsin in the coming months. I urge you to attend, and to incorporate takeoff pre-briefings into every flight.

This article was in part based on the FAASafetyTeam seminar on "Startle Effect," presented by the following people:

Jurg Grossenbacher, FAASafetyTeam Program Manager, Milwaukee FSDO.

Troy Siekas, FAASafetyTeam Program Manager.

Levi Eastlick, Chief Pilot, Bureau of Aeronautics, State of Wisconsin.

Laura Herrman, FAA Lead Safety Representative.

Steve Krog, FAASafetyTeam Lead Safety Representative.

Carley Young, FAASafetyTeam Safety Representative.

Thank you all for your insights!

EDITOR'S NOTE: Richard Morey was born into an aviation family. He is the third generation to operate the family FBO and flight school, Morey Airplane Company at Middleton Municipal Airport – Morey Field (C29), Middleton, Wisconsin. Among Richard's diverse roles include charter pilot, flight instructor, and airport manager. He holds an ATP, CFII, MEII, and is an Airframe and Powerplant Mechanic (A&P) with Inspection Authorization (IA). Richard has been an active flight instructor since 1991 with over 15,000 hours instructing, and almost 19,000 hours total time. Of his many roles, flight instruction is by far his favorite! Comments are welcomed via email at Rich@moreyairport.com or by calling [608-836-1711](tel: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. □



When it comes to our clients' projects...
...the sky's the limit!

Learn more about our aviation services!

BOLTON & MENK
Real People. Real Solutions.
Bolton-Menk.com

Portable Radios, Carb Heat, Backseat Drivers & More!

by Pete Schoeninger

© Copyright 2022. All rights reserved!

Q: What do you hear about the current airplane market?

A: My spies ALL tell me the market is still strong, especially for middle-aged singles, as I write this in mid-April 2022. Prices for the piston twin market are starting to move up as well. As an example, year 2000 model 58 Beech Barons are up to \$530K vs \$440K a year ago.



Pete Schoeninger

Q: What do you know about portable radios? Are they a good idea, how much range, cost, etc.?

A: For almost all pilots, I think they are a good idea. They can be used for backup in flight communications, some offer navigation displays, and all can be used for getting information before engine start, and even sitting at home listening and learning about aviation activities at your local airport. Radios range in price from \$200.00, up to \$800.00, depending on features.

In my experience, expect a range between 5 to 10 miles with a whip antenna inside the cockpit, but if you or your radio shop can connect you to an external antenna, you may get much more. After you get your radio, try it out and see how far away you can talk to your favorite tower, unicom, etc.

If you are counting on your portable radio to be your primary emergency-only radio, then I suggest you keep it very simple and buy one for a few hundred bucks. My suggestion for something very simple is because if you need to talk urgently and quickly, simple is better, especially if you have not used that radio in a while.

A good video with more information can be found by doing an internet search for "Portable Aviation Radios – How to Choose the Right One" by Sporty's Pilot Shop.

Q: I am finishing up my private pilot certificate in a 1980 Cessna 172. Because it is over 40 years old, I can accept the ancient engine technology, including the need for carb heat, engine preheat when cold, etc. A friend has a 2015 C172, and that engine has fuel injection, eliminating carb ice, but it is

sometimes difficult to start, especially when hot. Just like my old engine, it requires preheating during many winter days. When are the engine manufacturers going to catch up with current technology used in cars, motorcycles, etc.?

A: They could, but the cost would be astronomical because of the very small numbers of potential sales. Perhaps diesels or electric motors may come into the mainstream in a few years, and I think that is part of the reluctance to replace many legacy engines at this time.

Q: An old guy told me the glut of airplanes, called "the classics," made right after World War II (J-3 Cubs, Champs, Taylorcrafts, Cessna 120s and 140s, Luscombes, etc.) rarely nose over by too much braking, but slightly newer taildraggers can nose over much easier with heavy braking? Also is it true that in general, taildraggers are more likely to nose over at low speeds?

A: Yes, the classics had pretty marginal brakes, which could barely hold the airplane still at a 1700 RPM mag check. Newer taildraggers have much better brakes, but too much braking at low speed can result in a nose-over. Nose-overs at low speed are more common than at faster speeds because at low speed, there is very little elevator airflow to stop a tip over once started. Nose damage is a massively expensive proposition, usually requiring a new prop, engine removal and tear down, possibly a new firewall, etc.

Q: At an antique airplane fly-in, I saw a guy turn a crank for about 20 seconds on an old low-wing airplane, and then his friend inside the cockpit of the airplane did something and the engine turned over and then started. What was that?

A: An inertia starter. They were fairly common in the 1930s and 1940s in airplanes without electric systems. You turned a crank faster and faster to get a flywheel spinning fast and then engage a clutch to have the inertia of the flywheel spin the engine over a few revolutions.

Q: Is there anything I can put on my airplane's wheel pants to prevent staining from when 100LL fuel dribbles on it? Last summer, I had to have my main gear wheel pants repainted.

A: May I offer a different approach? If your fuel drain is leaking, have your mechanic fix it. More likely, you are

 www.westwoodps.com	Airport Engineering Services
	Aaron Stewart, P.E.
	920-735-6900
	Appleton, WI
ENGINEERING • ARCHITECTURE • ENVIRONMENTAL	

Read previous issues of
Midwest Flyer Magazine
or specific articles, at
midwestflyer.com - Archives

venting fuel in warm temps as fuel expands in a full tank and it has to go somewhere, so if your tank is full, it vents overboard. I won't comment on the brilliance of putting a fuel vent directly above a landing gear.

My simple suggestion would be to leave the fuel level down an inch or so from full when refueling your tanks. This will allow some room for heated fuel to expand without going overboard. If you need max fuel capacity, top off the tanks just before takeoff and fly a few minutes out of each one to give a little room for expansion.

Q: Recently in a rented 1983 Cessna 172, I experienced nose wheel shimmy on landing for the first time. I happened to be with an instructor who stopped me from slamming on the brakes – my first reaction to this surprise. What do you know about nose wheel shimmies?

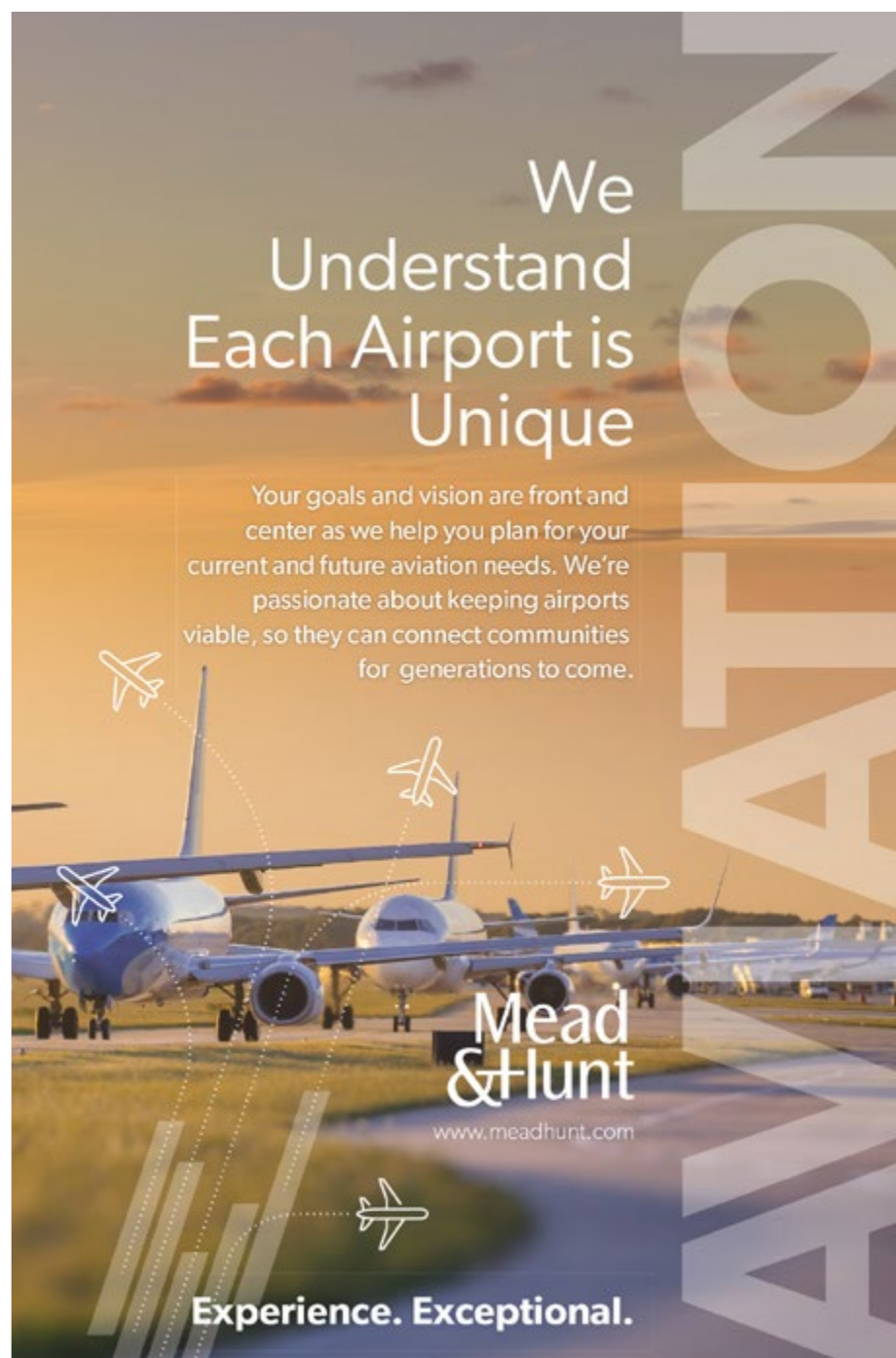
A: When your nose wheel shimmies, something is not right that should be fixed, as the problem will almost always get worse. It is possible for a violent shimmy to cause an expensive nose collapse, with firewall damage, prop damage, and requiring an engine teardown.

There are many causes of nose gear shimmy, and most are fixed relatively easy. If the nose tire is very low on air, or cupped or otherwise damaged, that's an easy fix. Getting a little more complex, if the airplane has a shimmy dampener (your C172 has one), perhaps that dampener needs servicing, rebuild, or replacement. (Hint: There are good replacement products available at less cost than OEM stuff.) The cause of a nosewheel shimmy should be addressed promptly and corrected to save massive problems later.

Q: At an airshow last summer, a guy parachuted out of a Piper J-3 Cub. When the airplane landed, I noted the pilot was flying from the front seat. I was certain all J-3 Cubs are placarded "solo, rear seat only" or something to that effect. Was the guy legal? Have you ever flown a J-3 Cub from the front seat solo?

A: You are correct about the placard. The type certificate for the last J-3 Cub built (there are three versions) is the model J-3 C-65 (Continental 65). Stated in the notes section of the aircraft's operating manual, the airplane may be flown from the front seat IF weight and balance limitations are met. Remember, the fuel tank is in the nose of the airplane. In my experience with a fairly light pilot and fairly light fuel load, you might be OK. Yes, I have done it. I much prefer the way the airplane handles from the rear seat when solo, and there's lots more room as well.

As far as legality of a type certificate vs a placard, I asked two different FAA inspectors many years ago and got two different answers. My advice is to always sit in the backseat when flying solo.



We
Understand
Each Airport is
Unique

Your goals and vision are front and center as we help you plan for your current and future aviation needs. We're passionate about keeping airports viable, so they can connect communities for generations to come.

Mead
& Hunt
www.meadhunt.com

Experience. Exceptional.

Q: I am considering buying an airplane, perhaps 30 years old, that could carry my family (me, my wife, and our three kids, ages 10, 12, and 15). Thus, I need more than a four-seater. I am looking at the Piper PA32 series, the Cessna 206 and 210s, and the Beech A36. I recently rode in an A36. It seemed quieter, more comfortable, and better built, compared to the others. What's your opinion of them?

A: I think they are all very good airplanes, and very worthy of your consideration. They do fall short in that there is not a separate baggage compartment beyond the area which holds seats 5 and 6. If that is not a concern for you, go for it with the usual precautions of ALWAYS having a prepurchase inspection done by a mechanic who is knowledgeable of the make and model, and ALWAYS having a title search done. 1992 models are bringing around \$300K for a good one in this current hot market.

EDITOR'S NOTE: Pete Schoeninger 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. He welcomes questions and comments via email at PeterSchoeningerLLC@gmail.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. □

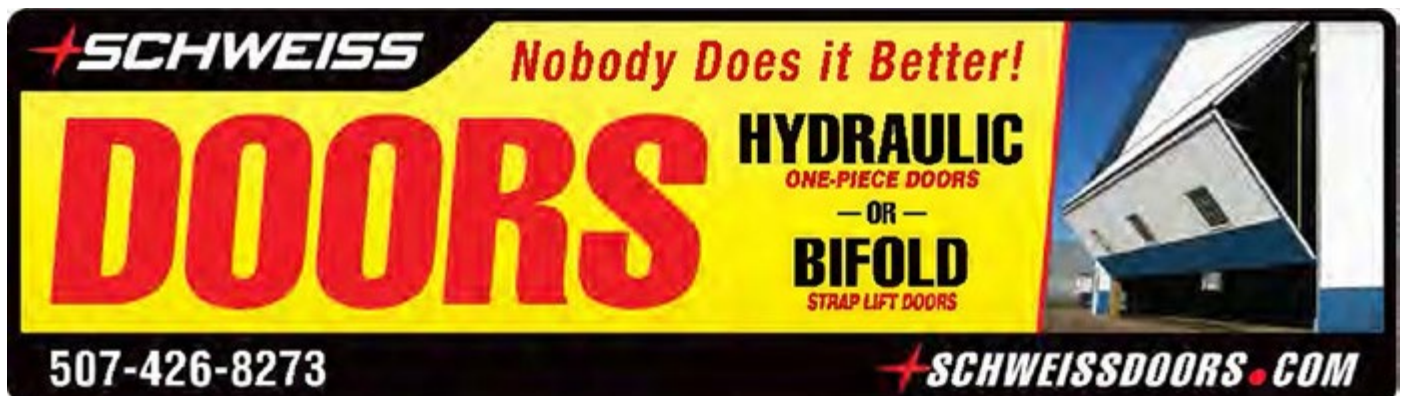
FAA Appoints Lirio Liu Head of Aircraft Certification

WASHINGTON, DC – The FAA has appointed Lirio Liu manager of Aircraft Certification, replacing Earl Lawrence, who has held the position since 2018. Liu is an aerospace engineer and has been with the FAA since 1991, most recently in the FAA's International Affairs Office. Much of that experience has been in aircraft certification and safety roles. Prior to that role, Liu managed the Office of Rulemaking for aviation safety for seven years.

Lawrence came to the FAA in 2010 as manager of the Small Airplane Directorate. Prior to that he had been EAA's Vice President of Industry and Regulatory Affairs. He worked his way up through the FAA executive branch, becoming the Director of the UAS Integration Branch from 2015 until 2018, when he was appointed the manager of Aircraft Certification. Lawrence has now been reassigned elsewhere within the FAA. □

**SHARE with your fellow pilots, EAA chapters, flying clubs
& aviation organizations that *Midwest Flyer Magazine* is now online
& FREE!**

**See SUBSCRIBE NOW
At MidwestFlyer.com**



SCHWEISS Nobody Does it Better!

DOORS **HYDRAULIC**
ONE-PIECE DOORS
— OR —
BIFOLD
STRAP LIFT DOORS

507-426-8273 **SCHWEISSDOORS.COM**

Arthritis

by Dr. Bill Blank, MD

© Copyright 2022. All rights reserved!



Dr. Bill Blank

Arthritis refers to painful, swollen joints with decreased mobility and is the most common cause of disability in the U.S. Approximately 50 million people are affected. It can have a sudden, acute onset or begin gradually. In many

cases it becomes chronic. It has aeromedical significance when operation of the controls, or emergency egress of the airplane, is compromised. Medication side effects can become an issue as well.

To oversimplify, there are two types of arthritis: Osteoarthritis, and all the rest. Osteoarthritis is sometimes called wear and tear arthritis. It results from joint use and abuse. Age, heredity, and obesity are risk factors, as is smoking. Damage to the cartilage between the joints occurs. This causes bone to rub against bone and great pain. Joint replacement is frequently needed. All other forms of arthritis comprise a diverse group of diseases which usually result from the body's immune system attacking and damaging the joints, especially the lining of the joints. Examples are: Ankylosing Spondylitis (arthritis of the spine), Juvenile Arthritis, Gout, Psoriatic Arthritis, and Rheumatoid Arthritis. Gout is not an autoimmune disease, but rather an inflammatory arthritis caused by the deposition of uric acid crystals in the joint.

For pilot certification, the FAA is concerned about joint deformity and decreased range of motion or strength which would impair flight duties. Some of the diseases causing arthritis are systemic diseases. The symptoms of the disease and required medications are important. For mild arthritis,

your AME can certify you via a CACI (Conditions AMEs Can Issue). There is a worksheet which you can find online. A status report from your treating physician is required. Osteoarthritis, along with arthritis due to Rheumatoid, Psoriatic, and Ankylosing Spondylitis, can be certified via CACI. The condition must be stable. No more than mild to moderate symptoms are permitted. There must be no significant limitations to range of motion, lifestyle, or activities. Permitted medications include steroids, up to the equivalent of 20 mg of prednisone daily, NSAIDs, methotrexate and others. In some cases, there is a no-fly time after taking the medication. A list of approved medications is on the CACI worksheet. If you know you will need CACI certification, I recommend that you gather up and bring all this information to your flight physical. Your AME must submit your exam within two (2) weeks of his entering your confirmation number into the system. These days, gathering all this information and getting it to your AME within two (2) weeks, can be quite difficult.

If you are not eligible for certification via CACI, you may still be able to receive a Special Issuance Certification. Your AME will need to defer your exam. You can Google the Arthritis Disposition Table in the AME guide. Read carefully and understand the requirements. Be sure you submit EVERYTHING required at the SAME time. Submitting it piecemeal will cause unnecessary delays.

I hope you will not be bothered by arthritis, but if so, there is medical help available and probable certification in most cases. *Happy flying!*

EDITOR'S NOTE: Columnist William A. Blank is a physician in La Crosse, Wisconsin, and has been an Aviation Medical Examiner (AME) since 1978, and a Senior AME since 1985. Dr. Blank is a retired Ophthalmologist, but still gives some of the ophthalmology lectures at AME renewal seminars. Flying-wise, Dr. Blank holds an Airline Transport Pilot Certificate and has 5600 hours. He is a Certified Instrument Flight Instructor (CFII) and has given over 1200 hours of aerobatic instruction. In addition, Dr. Blank was an airshow performer through the 2014 season and has held a Statement of Aerobatic Competency (SAC) since 1987.

DISCLAIMER: The information contained in this column is the expressed opinion of the author only, and readers are advised to seek the advice of others and refer to the Federal Aviation Regulations and FAA Aeronautical Information Manual for additional information and clarification. □

Jet Room Restaurant Wisconsin Aviation Terminal Dane County Regional Airport, Madison, Wisconsin (KMSN)			
DINE IN 	Open 7 days for breakfast and lunch. Full Menu available until 2:00pm every day! Monday - Saturday 7:00 am - 2:00 pm Sunday 7:30 am - 2:00 pm Catering Available from the Jet Room! info@madisonjetroom.com	DELIVERY, CATERING & DINE IN AVAILABLE 608.268.5010	CARRY OUT and delivery only. Monday - Tuesday 9:00 am - 6:30 pm Wednesday - Saturday 7:00 am - 6:30 pm Sunday 7:30 am - 5:00 pm View our full menu at www.insatia-bowls.com info@insatia-bowls.com
		CARRY OUT 	

by Bob Worthington

© Copyright 2022. All rights reserved!

The average age of today's student pilot is 33. The average age of pilots in general is 44. Obviously, pilots are not young whipper snappers. To be able to legally fly, a pilot must be current and meet physical standards, that is, be in decent shape.



Bob Worthington

Unfortunately, 42.4% of adults in America are obese. This could lead to heart disease, type 2 diabetes, stroke, or some forms of cancer, all of which could result in a medical

What shape are you in?

disqualification to fly. The Centers for Disease Control (CDC) recommends that each adult do 150 minutes of moderate activity a week (such as brisk walking) and participate in muscle strengthening activity twice a week. Only 25% of American adults meet these guidelines.

I am a poster child for what not to do. As a writer I experience a sedentary lifestyle. Additionally, I am lazy. I know better. I used to be a professional athlete in my 20s... I am now 85. I also used to teach classes in exercise physiology, mental conditioning, and weight control as a sport psychologist. I have all my hair (it's still brown), all my teeth and don't need glasses. But as I confessed, I am lazy and overweight. My gym is just an 8-minute walk away, but my usage is infrequent.

My legs don't work very well, either, because all my bones below my waist have been broken from motorcycle accidents, an Army parachute jump and gunshot wounds. Also, exposure to Agent Orange while serving in Vietnam destroyed my heart, but a few surgeries (and plenty of meds) have me still vertical and mobile. See, I have plenty of reasons not to exercise.

How does my lifestyle match yours? Statistically, the chances are what we do or fail to do is quite similar. But I learned how to change that, in a manner that even defeats my laziness.

A few weeks ago, I tuned in my favorite TV cowboy channel looking for Roy Rogers or Gene Autry westerns (both were pilots, by the way). Being late at night, there were no movies, but there was an infomercial about some exercise equipment for home use. I was ready to turn it off when a phrase caught my attention: "As little as 10 minutes a day can improve your physical condition." No, I thought, this is just another scam to get me to buy something. But my curiosity got the best of me, so I sat down to watch the entire show. With my background in exercising, I began to think, "this equipment may have merit." The next day I began my research and decided this equipment could become an easy way to exercise and meet the CDC guidelines on physical activity. Thus, I ordered one from Amazon.

This column is not a paid advertisement, but rather I wish to share my experience using the exercise equipment called "Slim Cycle." As I write this column, I have had my Slim Cycle for a month and here is what I have discovered.

Again, adults should spend 150 minutes a week doing aerobic and strength conditioning exercises. Aerobic (or cardiovascular) exercises include running, walking, swimming, or cycling. Strength exercises involve lifting weights, using resistance bands, or using your body weight doing push-ups, sit-ups, etc. Slim Cycle allows you to do both at the same time.

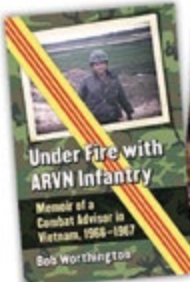

The Slim Cycle is a sturdy stationary bike with weight resistance cords. The cycle can be set up as a stationary bike or lowered to become a recumbent bike. It costs \$200.00 (but Amazon sells like-new cycles for less) and comes disassembled. Assembly is easy (it took two of us less than an hour, not rushing) and all tools are included.



Slim Cycle

One Pilot's Story

Bob Worthington,
Author of "The Left Seat"

Find out how to
get your copy of the
book and movie at

www.BobWorthingtonWriter.com

A how-to-do-it video is available on the Slim Cycle website: slim-cycle.com. The bike occupies a space of 21 by 46 inches, weighs about 45 pounds, and can hold a 300-pound person. It also folds up and has rollers for easy storage in a closet, for instance. Just don't make the mistake and leave it there.

The Slim Cycle is comfortable (extra padding for the seat is available) and operates as a typical stationary bike. The difference is where the front handlebars meet the bike frame, there are two resistance band handles to grasp while doing the strength exercises using the arms. Both the pedaling and strength bands are adjustable for resistance.

A common question for conditioning experts is which is the best exercise...fewer reps and more weights or more reps with less weights. There is no right response. Less reps with more weights increase muscle mass and strength, while more reps with less weights are best for overall endurance. But most pilots do not want to emulate Arnold Schwarzenegger, just increase, or maintain their endurance, so the Slim Cycle resistance bands are best for that.

A second query is, which is more beneficial...one long exercise session or more but shorter sessions? Several studies have concluded that more frequent but shorter exercise workouts are better for the heart and weight loss than doing it all at once. One main reason for favoring this usage is that most people avoid exercising if it is inconvenient. Shorter workouts are less intrusive for busy people and easier to engage in. This convenience of exercising encourages more workouts.

The bike also has a battery-operated computer system (control panel) to provide feedback on your usage. It functions as a scanning display or can focus on one item. It shows the time in use (which I reset to zero after each workout), speed pedaling in mph, distance covered in miles, calories expended, total miles of all workouts, and pulse rate (measured by holding the heart monitor grips on the handlebars). Workout videos and apps are available, but I have not needed them.

Consider this. The life expectancy of industrialized countries is increasing. Americans are living longer. Medical science and health care allows us to be active longer. Pilots today are continuing to fly into their 70s and 80s. To do this they must remain healthy and fit to pass their FAA medical exams. That requires healthy diets and exercise. The Slim Cycle is an easy and convenient way for pilots to remain fit.

My first day, I worked out for 5 minutes, and all went well. The next day, 10 minutes; the next, 15 minutes, which I continued for a week. The next week I went twice a day, 10 minutes each, for seven days. I am now up to 30 minutes a day (cycling twice a day). The Slim Cycle is only 20 steps from my computer. It is so convenient that even I can no longer find excuses not to exercise. I can take breaks during the day to achieve 30 minutes. I have my Slim Cycle in my bedroom, but it can be used anywhere. One could pop off 15 minutes before going to work and another 15 minutes after dinner. The Slim Cycle easily fits into a den or office or can be

readily rolled into a living room to use.

But the big question is, does it work? My normal heart rate is 60 beats per minute. Initially, at the end of a 15-minute session, my heart rate went into the high 80s and low 90s per minute. A

month later the high heart rate is in the low 70s and returns to 60 in a minute. I expend over 230 calories each day (at 30 minutes) cycling over six miles. In the first four weeks, I have lost 3.2 pounds (but for half that time, I was not yet on daily 30-minute workouts, and I never changed my diet). My muscles are larger, and my walking has improved slightly. Most improved is the vascular system in my legs. Before Slim Cycle, I wore compression hose to reduce swelling in my feet, ankles, and lower legs. In four weeks, the swelling is gone, and compression hoses are no longer needed.

I am convinced. Using the Slim Cycle has made exercising for me easier than ever before! It is convenient and a short workout has done wonders to my body. Go to www.slim-cycle.com and check it out yourself. This has been the best exercise decision I have ever made!

DISCLAIMER: The information contained in this column is the expressed opinion of the author only and is not intended to be health advice. Readers are urged to seek the advice of others, including their health care professional, before exercising. Neither the author, *Midwest Flyer Magazine*, *Flyer Publications, Inc.*, or their staffs, employees or advertisers assume any liability for the accuracy or content of this column or any other column or article in this publication.

EDITOR'S NOTE: Pilot, Viet Nam veteran and former university professor, Bob Worthington of Las Cruces, New Mexico, is the author of "Under Fire with ARVN Infantry" (<https://mcfarlandbooks.com/product/Under-Fire-with-ARVN-Infantry/>), and producer of the 2019 film "Combat Advisor in Vietnam" (www.borderlandsmedia.com).

Facebook: Bob Worthington Writer. Website: www.BobWorthingtonWriter.com. Bob Worthington has placed excerpts about combat flying in Vietnam (from his books) on his website. Here is a direct link to those excerpts: www.BobWorthingtonWriter.com/combating-flying-in-vietnam/. Every couple of months, he adds another excerpt. □



Bob Worthington doing his workout on his Slim Cycle.

DAYS LIKE THESE

Come hang out with us this year!

by Mark Baker
AOPA President and CEO

I'M WRITING THESE words just having returned home from a whirlwind week at Sun 'n Fun Aerospace Expo in Lakeland, Florida. What a great time. The days were long but filled with so much excitement, camaraderie, and aerial entertainment that the week quite literally flew by. Amid the events and meetings, I had a chance to meet with our members—reminding me that my best days are spent with you.

An airplane, blue skies, and thousands of aviation enthusiasts always puts me in a good mood. Sun 'n Fun never fails to exceed my expectations, and this year was no exception. I love spending the days talking with you—about where you're traveling, what you're flying and, yes, even the issues you're coming across that impact your freedom to fly. It's days like these that remind us of why we do what we do at AOPA.

I'm thrilled about aviation event season kicking into high gear, and more specifically, the return of AOPA events. We haven't had one of our fly-ins since 2019, and I've been waiting for the all-clear to get back together in-person. And now it's a go!

Mark your 2022 calendar and set your travel sights on Spokane, Washington; Tampa, Florida; and Fort Worth, Texas.

If you've been fortunate enough to attend one of our fly-in events over the years, you know how exciting and fun they are. In just the past eight years, we've welcomed more than 100,000 attendees to our engaging and educational gatherings across the country. We've seen our members in all regions—stretching from New England to Southern California, from the Pacific Northwest to Florida, and nearly everywhere in between. More than 20 wonderful destinations in all.

If there is one thing that the past few years have taught us, it's that it's important to gather with our friends in settings that allow us to kick back, share some stories, and simply enjoy each other's company.

In short, we just love hanging out with our fellow aviators. So, while we have cherished every one of our past fly-ins,



Mark Baker

we're excited to roll out a new concept in 2022. We're calling our events "Hangouts." And they'll be just like they sound, capturing the spirit of aviation in a way that brings out the best of events and the best in aviation.

Our first Hangout will take place on September 9 and 10 at Felts Field in Spokane, Washington, followed by our Hangout on November 4 and 5 at Tampa Executive Airport in Florida. They are both great aviation locations, places I have long loved flying to.

These two-day Hangouts will offer everything a pilot could want—fun, food, learning, and a chance to renew old friendships and forge new ones. AOPA Hangouts will offer the ultimate experience for the GA community and aviation enthusiasts looking for an adventurous escape back to the grassroots fun of flying. Who doesn't love pitching a tent under the wing, shooting the breeze, and telling stories (some of them true!) around a good old-fashioned campfire?

Strolling around, you'll be able to see many aircraft displays, chat with aviation vendors, socialize with top aviation influencers, and connect with fellow aviators while enjoying food trucks, live music, and entertainment. We'll also have staff on hand who will answer any question you have about AOPA and your membership. To cap off the days, you'll be able to watch exciting world-class aviators facing off in a high-energy STOL demonstration.

In addition to these two Hangout events, we will be back with our Aviator Showcase in 2022. Like last year, we'll hold this at Fort Worth Alliance Airport in Texas. Held on June 16 and 17, the Aviator Showcase will again be an amazing opportunity to meet with the industry's leading experts in avionics and cockpit technology, flight planning and weather resources, and aircraft manufacturing and sales. Everything you and your airplane need.

Our Aviator Showcase will feature an exhibit hall, aircraft display, and educational seminars presented by event sponsors. If you're looking to upgrade or still searching for the perfect aircraft, local services such as paint shops, avionics manufacturers, and aircraft detailers will be there to help. You can also talk to aviation finance professionals, insurers, and dealers about buying the aircraft of your dreams.

What an amazing year it's shaping up to be. I can't wait to see all of you at one of our AOPA events and talk all things flying. Blue skies wherever you're flying this year. Hopefully, it's with us!



AOPA's Airport & State Advocacy Team... A Membership Benefit Like No Other!

*by Kyle Lewis
Regional Manager
Airports & State Advocacy
Great Lakes Region
Aircraft Owners & Pilots Association*

amazing to hear how airports are thriving. Operations have been on an uptick in the last 5 years, and many airports are undergoing tremendous growth! Airport sponsors (municipalities) are investing in their infrastructure with local dollars, and that is exciting to witness.

Since January of 2020, the AOPA Airports and State Advocacy Team consulted

I want to pull the curtain back and showcase AOPA's airport advocacy work. This being the 25th year of the AOPA Airport Support Network (ASN), I feel it is worth a look at how I, along with other AOPA staff, take aim at airport advocacy.



Kyle Lewis

First, it is worth mentioning that AOPA is the only national organization that has a dedicated team with airport advocacy as a priority. This is a direct benefit to our members. Through AOPA's Airport Support Network of over 1,900 volunteers, AOPA staff such as myself have intimate knowledge of challenges faced by pilots, and other airport users.

The key to our success is the ability to network and maintain relationships with regulatory authorities like FAA and individual state Departments of Transportation or aeronautics commissions, depending on the governance in each state. We work closely with state level pilot associations and become involved in the American Association of Airport Executives (AAAE) at the national and regional chapter level. AOPA works hard to stay involved in these groups and organizations across the country, being the voice of GA in technical advisory committees (TACs) for state aviation system planning. We attend state and regional airport/airport manager conferences to get a sense of what issues airports are facing. It is also wildly



Fly Regional Drink Local.

Now Open!

**Experience the third location of St. Nicholas Brewing Company, MDH.
Only terminal in America with on-site brewing.**

- New terminal building mimics original 1940's hangar design
- 75-seat restaurant and 30-foot bar overlooking the runway
- An additional 50 seats will be available on a patio next to the runway

- Brewery operation will be located along the front of the terminal building
- Private venue space for larger gatherings

 /StNickMDH

665 No Airport Road • Murphysboro IL • 62966
www.stnicholasbrewco.com/mdh



KMDH Southern Illinois Airport

with members or airports on over 300 specific airport issues or concerns. These issues range from a quick phone call or email about airport funding or operations, to the more dramatic issues of Dillingham Airfield in Hawaii, Santa Monica, and Reid Hillview Airport in California, all under threat of closure. Our three largest issues being reported are hangar leases, airport development issues, and airport rules and regulations. Airport closure threats rank at 4th in our casework, with a large majority of these being private airports. AOPA can advise members in these situations, but private airports are private property, and we insist that a strong local pilot group be involved in these issues.

As hangar leases are a hot topic, it is prudent that you know what you are signing. Usually a standard T-hangar lease is straightforward, however, there can be some sticking points that need consideration, like insurance requirements. A land-lease and private hangar construction may be more complex and require legal review. Reversion clauses are suggested by FAA policy, so this is a buyer/builder beware situation. AOPA is happy to review a lease on terms of FAA compliance, but if there are questions concerning legal actions, we will point you to a state licensed aviation attorney. For members who subscribe to AOPA's Legal Services Plan, we offer review of legal documents, such as aircraft purchases, hangar leases, etc.

What does a successful advocacy strategy look like? Obviously with airport closure, we focus on keeping the airport open. Success in other issues may be a bit more hidden, as the success is usually in proper education and formulating an expectation. This strategy requires a strong, unified, mission-oriented airport support group that can effectively communicate with airport stakeholders, and airport management. Our goal is to seek the correct answer, and the

correct answer may not always be the favored answer. Keep in mind that if an airport has received federal grant dollars, they are bound by certain grant obligations. If there are potential violations of these assurances, the FAA has policy in place to address these. A "Part 13 informal" or "Part 16 formal" complaint may be the pathway to resolution, and AOPA is willing to consult with a member before that action is chosen. These should be the last option, as the issue is most likely able to be resolved at the local level, with common sense discussions to airport management. Part 13 and Part 16 complaints may take years to resolve, and the FAA is under no obligation to answer the informal Part 13 complaints at all.

AOPA's Airport Support Network (ASN) is another tool in the toolbelt for local airport users to have as a resource. AOPA equips our ASN volunteers with resources and information to cover a variety of questions and topics. These include Airport Cooperation Research Project (ACRP) studies and reports on airport management, preservation of public-use airports, and developing airport business plans. We have catalogued more than 15 of these ACRP guidebooks that are available for free to our ASN volunteers.

We have resources that provide best practices for hosting an airport open house, how to speak with local political leaders, writing letters to the editor, FAA policy and Advisory Circulars, and access to topics that will help local airport users start an airport user group. We are currently seeking new ASN Volunteers to join our ranks. Please help support your airport and visit aopa.org/asn or call [\(800\) USA-AOPA](tel:800-872-2676) for more information!

kyle.lewis@aopa.org
www.aopa.org [800-872-2676](tel:800-872-2676)



AOPA Hosts Sixth Annual Hoover Awards Gala

WASHINGTON, DC – The Aircraft Owners & Pilots Association (AOPA) hosted its sixth annual "Bob" Hoover Trophy Reception, March 23, 2022, at the Signature Flight Support General Aviation Terminal at Reagan National Airport in Washington, DC.

Receiving the 2021 trophy was Wally Funk, who is best known for her 2021 journey into space on a Blue Origin rocket. Not only has Funk accumulated 19,600 flight hours, but she has also been a prolific CFI, air race champion, NTSB investigator, and inspiration to generations of aviators.

Other awards included the second annual Brigadier General Charles E. McGee Aviation Inspiration Award

presented to Glenn Gonzales, founder, and CEO of Jet It.

The AOPA GA Safety Award was presented to Garmin Autonomí.

The 2021 Sharples Award was presented to Anthony "Tony" Restaino, President, Florida Aero Club and an AOPA Airport Support Network Volunteer, for his efforts to preserve North Perry Airport (KHWO), Pembroke Pines, Fla.


Receiving the 2020 Sharples Award was Dewey Davenport, First Officer at NetJets and a barnstormer.

The 2021 Hartranft Award was presented to Congressman Rick Larsen (D-WA 2nd District), Chairman of the House Aviation Subcommittee.



EPA's 2030 Deadline To Replace 100LL Was Discussed At SNF

LAKELAND, FLA. – Representatives of the Aircraft Owners and Pilots Association (AOPA) were among those at Sun 'n Fun 2022 who discussed the Environmental Protection Agency's (EPA) 2030 deadline to replace 100LL with a drop-in unleaded aviation fuel. Industry leaders are expressing

hope that an alternate fuel will be developed in time. AOPA President and CEO Mark Baker said that 100LL would be phased out soon, even without the deadline, as there is only one plant worldwide that manufactures tetraethyl lead, and it is not expected to continue to manufacture it beyond 2030. 

AOPA Establishes Strategic Relationship With SiriusXM

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

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

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

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

Read Previous Issues of
Midwest Flyer Magazine
by going to midwestflyer.com -
Archives - PDF Archives

Minnesota Seaplane Pilots Association Safety Seminar
September 16-18, 2022
Madden's on Gull Lake - Brainerd, Minnesota

Seminars of Interest To All Pilots!
Both Seaplanes & Aircraft On Wheels Welcomed!
Land On Gull Lake or At East Gull Lake Airport (9Y2)



Brad Thornberg Photo

For hotel reservations
and to register call
800-642-5363

Steve Guetter, President - www.mnseaplanes.com

NEWVIEW
TECHNOLOGIES, Inc.

**STILL NEED
ADS-B?**



AVIONICS SOLUTIONS FOR SINGLES AND TWINS
FULL SERVICE AIRCRAFT MAINTENANCE
IFR & TRANSPONDER CERTIFICATIONS
2020 ADS-B UPGRADES
FAA/CRS NU7R875N
(920) 303-0709 | jessica@newviewtech.com

NEWVIEW TECHNOLOGIES, INC
WITTMAN REGIONAL AIRPORT - OSHKOSH, WI

GARMIN **AVIDYNE** **ASPEN AVIONICS**
STRATUS **L3 LYNX**
by APPAREO TRAFFIC TRANSPONDER / WEATHER
FS ENGINEERING INCORPORATED **TRIG** **JPI JPI INSTRUMENTS**

www.newviewtech.com



We took this Piper Super Cub PA-18 on a joy ride, but normally she's quite the workhorse, training pilots all summer long.

Splashing Around Northwest Montana

by Yasmina Platt

My favorite time of the year is with us! Summer is here, the mountains are calling, and we must go... fly them!

2020 was the first time my husband, Jared, and I visited Montana (visit www.airtrails.weebly.com/montana for flying blogs from that trip) and now it's (like) an addiction. After spending a little over a month in neighboring Idaho, we spent another 1.5 months in NW Montana in 2021.

The first year, we left wishing we had done some seaplane flying in the area, but the local seaplane company, Backcountry Flying Experience (www.backcountryflyingexperience.com), was all booked up. Last year, we made sure to secure a few flights months before.

NW Montana offers big lake water, mountain lakes, numerous rivers, and advanced mountain flying. But, unfortunately, low visibility from both smoke and weather made us cancel on a couple of occasions and, even on the day that we flew, the weather limited us (due to clouds and wind which also translated into pretty choppy water).



Regardless, I had a great time. I practiced some river flying and docking, we evaluated a lot of different areas for debris and other conditions, and we went aerial sightseeing over Flathead Lake. A "flying Yasmina" is a "happy Yasmina," no matter what!

We took the school's Piper Super Cub PA-18 on the joy ride, but normally she's quite the workhorse.



The local seaplane company, Backcountry Flying Experience, operates from a nice lot on the banks of the Flathead River, just north of Bigfork (see circled area).



Lakeside Airport (MT03) has a nice 3,376 x 60 ft paved runway in a beautiful setting. It is essentially a “one-way-in, same-way-out” kind of an airport due to significant runway slope and rising terrain on the south end of the runway. Landings should be done to the south (19) and departures to the north (01). A low pass prior to landing is recommended to clear the runway of animals.

She spends all summers training pilots.

Backcountry operates from a nice lot on the banks of the Flathead River, just north of Bigfork. Bigfork is a cute town from the ground and from the air. It has been honored with flattering designations in many publications. It is a lovely, upscale, year-round resort village that is brimming with art galleries, fine restaurants, golf, high-end boutiques, and live theater.

I felt like the views from up above truly represented Montana and all of its beauty. The weather prevented us from seeing beyond the Flathead Valley, but the Bob Marshall Wilderness, the Jewel Basin, Flathead National Forest, Flathead Lake, and all the little rivers and creeks around, were awesome to see.

The homes on the lake were beautiful, but I’d prefer to have access to Lakeside Airport (MT03) given the choice. It appears to have a nice 3,376 x 60 ft paved runway in a beautiful setting. MT03 is a private airport with prior permission and training required. It is essentially a “one-way-in, same-way-out” kind of an airport due to significant runway slope and rising terrain on the south end of the runway. Landings should be done to the south (19) and departures to the north (01). A low pass prior to landing is recommended to clear the runway of any sort of animals or wildlife.

You know the drill... a good pilot is always looking for places to land should an emergency happen. A good seaplane pilot is always evaluating available water for obstacles, moving objects, and debris. There was a lot of debris (big tree logs) on the north side of Flathead Lake.

I’m excited about this summer up in Montana again... splash safe and splash often!

ABOUT THE AUTHOR: Yasmina Platt’s full-time job has her planning the future of aviation infrastructure for Joby’s electric Vertical Takeoff and Landing (VTOL) aircraft. She also writes an aviation travel blog called “Air Trails” (www.airtrails.weebly.com), in addition to articles



Bigfork is a cute town from the ground and from the air. It is a lovely, upscale, year-round resort village that is brimming with art galleries, fine restaurants, golf courses, high-end boutiques, and live theater.

on pilot destinations for *Midwest Flyer Magazine*. Pilots can locate articles Yasmina has written by going to www.MidwestFlyer.com and typing “Yasmina” in the search box, or by going to the “Archives” section, then “Columns,” then “Destinations.”



LoCamp Kits & Fully-Assembled Aircraft Now Available!

608-604-6515
eleineweber@goldenageaeroworks.com
www.goldenageaeroworks.com



Kreg Anderson
Nick Meyer Photo



Some snow-capped mountains right on the Wyoming/Utah border as we followed I-80 into the Salt Lake City area.
Nick Meyer Photo

A One-Way Flight From The Midwest To The West Coast

by Kreg Anderson

This past winter, I ferried a Bellanca Super Viking to California for a client with my college friend, Nick Meyer. We actually recreated a favorite trip of his when we flew a much-slower aircraft there, a Meyers Luscombe 8E. He said that it was nicer flying a faster and better equipped airplane this time.

Our route took us from Alexandria, Minnesota to Rapid City, South Dakota, then to Ogden, Utah for the first night; then to Boulder City, Nevada, and on to Oxnard, Calif., the second day. We stopped at "Waypoint Café" in Camarillo, California, which is a favorite airport restaurant on the West Coast.

Some of my observations from the trip...

1) 10.5 hours of flight time in a Bellanca Super Viking is a lot less grueling than the 24 hours it took the last time we flew this same trip in a Luscombe.

2) The **ONLY** clouds we saw on the entire trip were on top of the Ferris Mountains by Casper, Wyoming. Otherwise, it was perfect blue skies all the way! Incredible, considering how crappy our winter has been.

3) Ogden, Utah seems like a neat college city. A cool downtown area with lots of activities within walking distance. Someone at the local dive bar mistook Nick for a classmate of theirs from Weber State.

4) When it gets brought up in casual conversation that you're from Minnesota, Californians seem to gravitate



The Bellanca 17-30A Super Viking resting for the night on the ramp in Ogden, Utah.
Nick Meyer Photo



Hoover Dam
Nick Meyer Photo

towards the subject of weather and proceed to remind you how nice it is in California. *"Every. Single. Time."*

5) I feel that California has the greatest number of landscape companies per capita in the U.S. *"They are everywhere!"*

6) The Hoover Dam is HUGE.

7) Geographically speaking, California is a crazy diverse and beautiful state. We flew over beaches, mountains, and desert, all within a time span of 20 minutes.

8) The only famous person we saw was Miles Malone.

9) After experiencing West Coast prices, I will never, ever again complain about the prices at our local restaurants – or our airports!

10) The water in the Pacific Ocean in California is *coooooold*. It felt like the water in Minnesota lakes in May. That may have been the biggest shocker of the trip.

11) Kobe still owns L.A. For every LeBron jersey I saw, there were 10 Kobe jerseys.

EDITOR'S NOTE: Kreg Anderson is the Airport Manager at Chandler Field - Alexandria Municipal Airport in Alexandria, Minnesota. A self-proclaimed airport bum, Kreg received his Private Pilot Certificate in high school before enrolling at the University of North Dakota in Grand Forks. After graduating with a degree in Aviation Management in December 2016,



Kreg returned to his hometown where he became a flight instructor, gave scenic air rides, ferried aircraft, flew charter, and did a plethora of other tasks. In 2018, Kreg became the manager of the airport for the City of Alexandria and now performs that role, alongside other duties for the FBO, Alexandria Aviation. Earlier this year, Kreg was elected the secretary of the Minnesota Aviation Trades Association (MATA) and serves on the organization's board of directors (<https://www.mata-online.org/>). □

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.wisconsin.gov



Cornucopia Airport Now Open to the Public

by Hal Davis

After many years of hard work by a group of dedicated volunteers, Cornucopia Airport (23W) is now officially open to the public! The airport is located near the shores of Lake Superior along the western side of the Bayfield Peninsula, making it the most northerly public-use airport in the state. Owned by the Town of Bell, the airport has a single turf runway which measures 1,920' by 80'. The threshold for runway 05 has been displaced 635'.



2019 Solstice Fly-In, Cornucopia Airport (23W), Bell, Wisconsin.
Photo by Rich Wellner, Courtesy of the Recreational Aviation Foundation

The airport features a small pilot shelter outfitted with courtesy bikes for the 1.5-mile ride into town. There you can enjoy great restaurants, shops, and lodging. The Apostle Islands National Lakeshore is a convenient 4 miles away while scenic Bayfield is about a 30-minute drive. Visit www.visitcornucopia.com to find out more about the area.

June 17-19, 2022 the airport will be hosting its 3rd annual Solstice Fly-in. Attendees are invited to camp under their wing, socialize, and take part in the many outdoor activities the area has to offer. Advanced registration for the event is required. To register and to find out more about the airport, visit the airport's Facebook page at: www.facebook.com/CornyAirport.

As a public use airport, Cornucopia Airport is now part of the Fly Wisconsin Airport Passport Program, so plan your trip to get your stamp today!

Keep the Lights On

At night and during periods of poor visibility, airport lights of any type can be invaluable aids to pilots. That's why Wisconsin Administrative Code requires airports that have received state funding for airport improvements to operate the following minimum airfield lighting during periods of darkness, when such lighting exists:

1. Low-intensity lighting on one runway,
2. Airport beacon,
3. Windsock lighting, and
4. Obstruction lighting.

Many airports have pilot-controlled lighting capabilities; however, this is not an acceptable substitute for compliance. To aid aircraft that might not be equipped with a radio or may be experiencing radio failure, at least one runway needs to be set to low-intensity at night, even if it is pilot-controlled. For questions or concerns about this requirement, please contact me at howard.davis@dot.wi.gov or [608-267-2142](tel:608-267-2142).

2021 Airport Rates & Charges Report



The Airport Rates & Charges Report for calendar year 2021 is now available. Each year, BOA surveys Wisconsin airports for information relating to aeronautical services such as fuel prices, hangar rental rates and ground lease rates. The survey results serve as a comparative tool to help airports gauge financial practices and needs. Pilots, consultants and other users of Wisconsin airports can also benefit from the data collected. View the report and the data on our web site at: <https://wisconsindot.gov/av-pubs>.

New Wisconsin Aeronautical Chart



The 2022-2023 Wisconsin Aeronautical Chart is now available as well! As before, the chart includes an expanded airport information and points of interest section to make it easier to determine what types of amenities and attractions can be found at an airport. Aircraft owners registered in Wisconsin should receive a copy of the 2022-2023 Wisconsin Aeronautical Chart in the mail. Charts are also available at your local airport, digitally on our website, or contact our office at [608-266-3351](tel:608-266-3351) to request one in the mail.

Meet BOA Staff At AirVenture

Come meet BOA staff in person at EAA AirVenture 2022. Our booth will be in Exhibit Hall A, just across the street from the air traffic control tower. We will also have a tent located near the base of the air traffic control tower. At BOA, there's nothing we enjoy more than talking about Wisconsin airports, so bring all your questions and comments. While you are there, you'll be able to pick up complementary Wisconsin aeronautical charts and roadmaps, information about Wisconsin seaplane bases, Wisconsin airport points of interest, children's aviation coloring books and much more! If you won't be attending AirVenture this year, you can still meet us in person. To set up a meeting with any of our staff members call [608-266-3351](tel:608-266-3351).



WATA Difference

Wisconsin Aviation Expands Its Aircraft Maintenance Services With The Acquisition of Beaver Aviation's Assets

WATERTOWN, WIS. – Wisconsin Aviation, Inc., announces the expansion of its aircraft maintenance department with the acquisition of the assets of Beaver Aviation, Inc., at the Dodge County Airport in Juneau, Wisconsin.

Beaver Aviation, an aircraft maintenance facility established in 1946 and owned by Charles Swain since 1975, has been a great asset to pilots and aircraft owners in the Dodge County area. By retaining Beaver Aviation's experienced personnel, Wisconsin Aviation ensures a smooth transition of ownership and a continuance of Beaver's exceptional aircraft maintenance service, plus more! With this acquisition, expanded services will now be available at all three Wisconsin Aviation locations: Madison, Watertown, and now Dodge County Airport in Juneau, Wisconsin.

Wisconsin Aviation President and CEO Jeff Baum expressed his excitement about this addition: "Beaver Aviation's longtime relationship with Wisconsin Aviation and their excellent reputation in the aircraft maintenance arena made this an easy decision. This was a great opportunity to continue growing the business Chuck Swain and Eric Nelson have nurtured over the past several decades."

Wisconsin Aviation offers a complete line of general aviation services including private air charter, aircraft maintenance, avionics repair and installation, aircraft interiors, flight training, aircraft rental, aircraft management and sales, fueling and other ramp services.

For more information about Wisconsin Aviation, visit their website at WisconsinAviation.com, or contact Jeff Baum at [920-261-4567](tel:920-261-4567) or email JeffB@WisAv.com. □



(L/R) Beaver Aviation President and Owner Charles Swain, and Wisconsin Aviation President and CEO Jeff Baum, shake hands after the acquisition closing.

Jane Seeber Photo

BEAVER AVIATION, INC.
Now a Wisconsin Aviation Company

**WISCONSIN AVIATION**

SPECIALIZING IN:

- Annual Inspections
- Aircraft Restorations & Repairs
- Pre-purchase Inspections

**Great Turn-Around Time!**

Eric Nelson, A&P with Inspection Authorization (EricN@WisAv.com)
Dodge County Airport • Juneau, Wisconsin • 920-386-2636



**PROUD SPONSORS
HELPING TO MOVE
WISCONSIN BY AIR!**

GOLD

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

SILVER

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**

JetBlue Further Expands to Midwest with Daily Nonstop Service to Milwaukee from Boston and New York



MILWAUKEE, WIS. - JetBlue (NASDAQ:JBLU) has announced it has officially launched service from New York's John F. Kennedy International Airport (JFK) and Boston Logan International Airport (BOS) to Milwaukee Mitchell International Airport (MKE). With daily nonstop flights from New York and Boston, JetBlue continues to advance its growth strategy in the Northeast and introduce the airline's award-winning service and low fares to new customers in the Midwest.

Enabled by JetBlue's Northeast Alliance (NEA), Milwaukee service expands the airline's presence in the Midwest, while diversifying and advancing its New York and Boston focus city strategy. Milwaukee is one of more than half a dozen new cities recently added to JetBlue's route map. In 2022, the NEA will offer nearly 500 daily departures from New York's three major airports and 200 daily departures from Boston.

Located on the scenic shore of Lake Michigan, Milwaukee offers an exceptional blend of stunning natural beauty, big city arts and entertainment, and Midwest charm. A downtown RiverWalk connects German heritage-inspired Old World Third Street to the Historic Third Ward with its shops and art galleries and Milwaukee Public Market. Milwaukee is a city of colorful, walk-around neighborhoods, acclaimed culinary scene, and entrepreneurial spirit, where exciting attractions like the Milwaukee Art Museum meet brewery tours, excursion boats, professional sports, and a summer-long

schedule of lakefront festivals.

"Milwaukee County is thrilled that JetBlue will bring more tourists and business travelers from New York and Boston to Milwaukee and beyond. Our amazing lakefront, cultural attractions, restaurants, and breweries are just some of the ways that Milwaukee offers guests a world-class experience," said Milwaukee County Executive David Crowley. "I commend the airport team for successfully recruiting JetBlue to MKE. We are excited to use the new service!"

Milwaukee Mitchell International Airport (KMKE) currently offers nonstop flights to 35-plus destinations coast-to-coast, and more than 200 international destinations are available with just one connection. Earlier this month, KMKE received an Airport Service Quality (ASQ) Best Airport – North America award from Airports Council International, one of just eight U.S. airports to receive this honor.

"JetBlue's outstanding customer service and in-flight product will be a big hit for Milwaukee travelers," said Airport Director Brian Dranzik, who also serves on the VISIT Milwaukee Board of Directors. "Many people have been asking when JetBlue would come to Milwaukee. I'm glad that day has arrived. With our community's support, JetBlue will do well here and carry many travelers to New York and Boston."

For scheduled flights to and from Milwaukee, visit www.jetblue.com. □



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

Minnesota DOT Office of Aeronautics
395 John Ireland Blvd, MS 410 • St. Paul, MN 55155
651-234-7200 or (toll free) 1-800-657-3922

Minnesota eases registration requirements for sUAS owners

by Michael Johnson

The Minnesota Department of Transportation's Office of Aeronautics is responsible for collecting aircraft registration, sales and use taxes as required by law. Of the 7,877 total aircraft registered in Minnesota in fiscal year 2021, 1,099 are small, unmanned aircraft systems (sUAS).

New legislation for sUAS registration went into effect August 1, 2021. Registration of sUAS used for anything other than recreational purposes is now \$25.00. New sUAS registrations **applied for on or after August 1, 2021, or renewing June 30, 2022, will pay the new, lower \$25 annual registration fee**, and are exempt from the \$100 aircraft registration tax. There are no refunds or discounts for sUAS registration tax that was due prior to August 1, 2021, and penalties still apply for late registration tax payments that were due prior to August 1, 2021.

The Minnesota Legislature also significantly altered the requirements of sUAS owners and expanded the role MnDOT holds related to sUAS. A sUAS is now defined as an aircraft weighing less than 55 pounds that does not require human intervention from within or on the aircraft for it to operate. A sUAS is not limited to the vehicle and now also refers to all elements for sUAS operation. Specifically, Minn. Stat. §360.013 subd. 57(b) identifies "associated elements," such as the controls and the communication link itself, as being a regulated component of the sUAS.

There has also been a change to the insurance requirements for all sUAS. Recreational sUAS are no longer required to register with the State of Minnesota through MnDOT, nor provide proof of insurance to MnDOT. All commercial aircraft, including commercial sUAS, **must be covered** by liability insurance. The new legislation that went into effect August 1, 2021, requires that commercial sUAS owners show **proof of insurability** at the time of registration and issuance of a Commercial Operations License. Commercial sUAS owners no longer need to provide



Michael Johnson

certificates of insurance to MnDOT and insurance does not need to be continuous nor include cancellation clauses. Commercial owners must retain insurance records for each flight as MnDOT may audit records. Any sUAS owner may elect to remove/reinstate their insurance at any time, provided they obtain coverage for all flights. Commercial owners do not need to notify MnDOT when changing providers.

Finally, Minn. Stat. §360.012 now requires local units of government to notify MnDOT when they adopt a resolution affecting the operation of an unmanned aircraft. Political subdivisions are also required to allow the MnDOT commissioner to review proposed ordinances affecting those same aircraft.

Aircraft purchased in the State of Minnesota are subject to sales tax. Most of the aircraft sales and use tax is deposited into the State Airports Fund. The State Airports Fund contains money appropriated to it, or directed to be paid into it, by the legislature including aviation taxes: Aircraft Sales and Use Tax, Aircraft Registration Tax, Aviation Jet Fuel, Special Fuel Excise Tax, Airline Flight Property Tax, and Aviation Gasoline Excise Tax. The fund is paid out on authorization of the commissioner of transportation and used to:

- Acquire, construct, improve, maintain, and operate airports and other air navigation facilities.
- Assist municipalities in the acquisition, construction, improvement and maintenance of airports and other air navigation facilities.
- Assist municipalities to initiate, enhance and market scheduled air service at airports.
- Promote interest and safety in aeronautics through education and information.
- Pay MnDOT salaries and expenses for work related to aeronautic planning, administration, and operation.

With the annual fee for sUAS reduced to \$25 and smaller insurance requirements, it is easier than ever to register all of your sUAS online and pay your aircraft registration tax and Minnesota sales and use tax if applicable. MnDOT encourages you to register all of your sUAS today.

<https://www.dot.state.mn.us/aero/aircraftregistration/index.html>



Airport Development Funding Overview

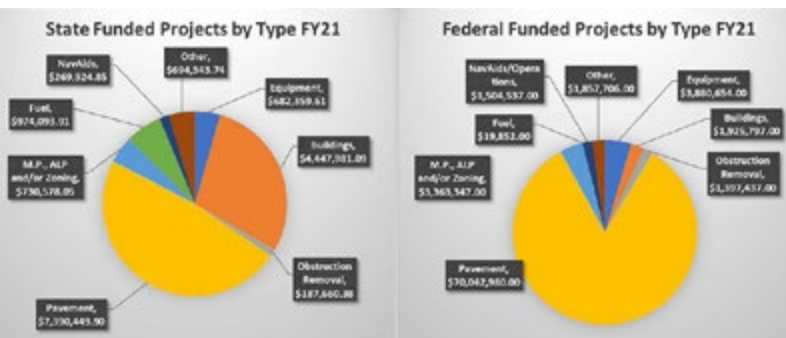
by Arika Johnson, PE, MnDOT Aeronautics

As everyone knows, the COVID-19 pandemic has brought a whirlwind of new experiences for most people, at work and at home. MnDOT Aeronautics is also no stranger to new tasks. Over the past year, the Airport Development Section of Aeronautics has been busy distributing new airport funding that resulted largely from the Coronavirus Aid, Relief, and Economic Security (CARES) Act.



Arika Johnson

To give a little background, MnDOT's Airport Development section administers state and federal funds for many different types of projects at Minnesota's public airports. Those projects could be associated with obstruction removal, nav aids, a new fuel system or rehab of the pavement at the airport, or any number of other improvements. In the graphics below, you can see the different project types that were funded with state and/or federal funds last fiscal year.

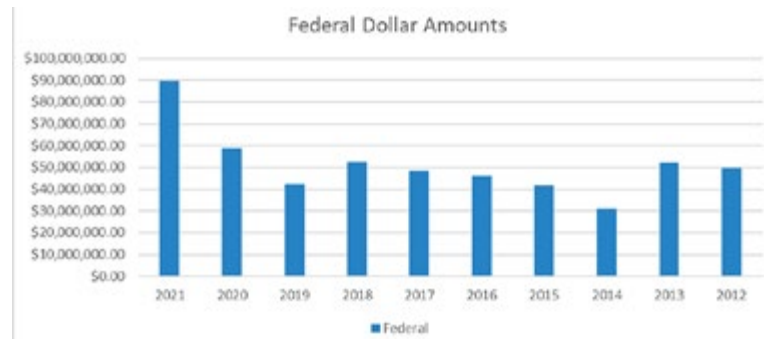


State and federal encumbrances from this past fiscal year, July 2020 through June 2021.

As you can see from the pie graphs, the majority of federal and state funding goes towards pavement projects that improve runways, taxiways, or other paved areas. Each project that requires federal or state funds also requires a written grant that goes through MnDOT's Airport Development Section. This past year we have seen an increase in the number of grants that were issued. There were 182 grants for 104 airports, which was a 56-percent increase over fiscal year 2020. In addition to the 182 federal and state grants, the CARES Act added an additional 88 grants. The 88 grants from the CARES Act helped distribute over \$158 million in federal pandemic relief to airports across Minnesota. Of the \$158 million, an approximate \$122 million has already been reimbursed to Minnesota airports.

Another big part of the funding from MnDOT's Airport Development Section is designated for maintenance and operations, often referred to as M&O grants. Over the past five years, we have seen an increase of more than \$150,000 to M&O funds for Minnesota public airports. This past state fiscal year alone, \$5 million was allocated for airport M&O. Of that amount, \$2,434,000 has been reimbursed to Minnesota airports.

Lastly, we can talk about state and federal grants that are reimbursed to Minnesota airports each fiscal year. On average, MnDOT's Airport Development staff administers more than 400 payments each year for state and federal grants. For fiscal year 2020-2021, 450 payments were distributed from grants. An additional 128 CARES Act payments were made. The amounts of those 578 payments range from \$1,000 to over \$1 million. The bar chart below shows the total for each fiscal year for state and federal grant payments made since 2012. State funds paid out for grants have been steady over the past few years, but the federal funds have seen an increase.



MnDOT continues to work hard to make sure that each airport receives the state and federal funds for capital improvement projects, M&O expenses, and other airport needs. If you would like to talk to your regional MnDOT Airport Development contact or have questions, please go to the Airport Development page online at mndot.gov/aero/airportdevelopment/contacts.html. □



Minnesota Aviation Hall of Fame 2022 inductees: (L/R) Ray Johnson, Dale Klapmeier, Noel Allard (holding Ben Curry's plaque), Kathy Vesely, Duane Edelman, Tim Callister, and Robin Knutson for her father, Martin Knutson.

Max Haynes Photo

2022 Minnesota Aviation Hall of Fame

The 2022 Minnesota Aviation Hall of Fame banquet was held April 23, 2022, at the InterContinental Minneapolis – St. Paul Airport (KMSP) Hotel, only six (6) months after the organization's 2021 banquet, due to rescheduling in 2021 because of the pandemic. Inductees included Ray Johnson, Ezra Benham “Ben” Curry, Duane Edelman, Kathy Vesely, Dale Klapmeier, Martin Knutson, and Tim Callister.

Raymond W. Johnson was born and raised in Pine City, Minnesota. After high school he attended Gale Institute in Minneapolis, where he learned telegraphy and railroad communications. He furthered his education at Northwest Electronics in Minneapolis, receiving his Second-Class FCC license. He received an A&E from Vocational Training School in Janesville, Wisconsin. In 1951, Johnson went to work for the Union Pacific Railroad in Denver, Colorado as a telegraph operator and station agent. Serving in the U.S. Army from 1953-54, he had additional training in Morse Code. Following the service, he earned his Private Pilot Certificate in 1958, and his Instrument Rating at Embry-

Riddle University in Miami, Florida. In 1958, Johnson went to work for Jamestown Flying Service as an Airframe & Powerplant Mechanic and flew powerline patrol and aerial application. He eventually ended up as a corporate pilot with Franklin Manufacturing, Sterner Lighting and finally, Kurt Manufacturing, where he spent 31 years (1966-97) flying nationally and internationally. Between his commercial flying as both a corporate pilot, and as a flight instructor at Minneapolis Crystal Airport and Buffalo Municipal Airport, and flying his own airplanes for recreation, Johnson amassed over 18,000 hours.

Ezra Benham “Ben” Curry (1896 – 1991) was born in St. Paul, Minnesota. He began his career as a railroad locomotive cleaner and was recruited as a civilian in 1917 by the Norton-Harjes Ambulance Service of France to drive battlefield ambulances. He had hoped to join the French Army but returned to St. Paul later that year when the ambulance service was disbanded. Curry then returned to St. Paul and enlisted in the U.S. Army Signal Corps Reserve, where he soloed a Curtiss Jenny in 1918 and served as an engineer.





In 1942, Curry was hired by Northwest Airlines and became the General Manager of Northwest Airlines' Vandalia, Ohio B-24 Modification Center. In 1944, he was transferred to the Holman Field, St. Paul Modification Center. Under his supervision, B-24s were retrofitted with radar units, and converted to tankers and camera ships. In 1946, following the war, Curry worked for Northwest Airlines as the contract manager at the Boeing plant in Seattle to build B-377 Stratocruisers. When he returned to Minnesota, he became the supervisor of line maintenance, and in 1951, he became manager of the mechanical division. In 1952, Curry resigned to work at the family lodge in Brainerd.

Duane V. Edelman (1941 –) grew up on a dairy farm near Clintonville, Wisconsin and enlisted in the U.S. Air Force straight out of high school in 1959. There, he became an aircraft crew chief, eventually maintaining F-100s for the U.S. Air Force Thunderbirds demonstration team.

Edelman moved to Sioux City, Iowa to learn to fly and received his Commercial Pilot Certificate in 1964. He flew skydivers and made mortuary flights to build time, receiving his Airline Transport Pilot Certificate in 1966. He was hired by North Central Air Lines and flew DC-3s, the very aircraft and airline that had inspired him as a child. He lived in Minnesota and worked for the airline for 38 years through its mergers with Republic and Northwest, flying the Convair 440

and 580, DC-9, and Boeing 727, 757 and 747.

At the time of the Republic Airlines and Northwest Airlines merger, Edelman was Director of Flight Operations, while continuing to fly the line. Northwest then appointed him Director of Flight Technical, where he worked on the implementation of the electronic flight bag, electronic clearance, and taxi clearance. He was then appointed Temporary Vice President to become Chairman of the SAE S7 Committee for the International Air Transport Association (IATA), writing guidelines for international operations. For this work, Northwest Airlines awarded him the "President's Award."

After retiring from Northwest Airlines, Edelman started his own company, Aircraft Data Fusion. The company worked on launch and recoverable space vehicles for the X-Prize competition, and with Honeywell on human factors. He worked on the concept of Free Flight, which would allow aircraft to control themselves to separate from other traffic, and the integration of supersonic aircraft into an airline operation (www.aircraftdf.com).

Kathleen R. Vesely (1954 –) of Golden Valley, Minnesota, was born in Bemidji, Minnesota. She got her first airplane ride from an itinerant seaplane pilot at the city's seaplane docks on Lake Bemidji in 1964. She went to college in Bemidji, where she studied Geology and Geography, and Planning and Environmental Studies. She began her career working for the Minnesota Department of Transportation (MNDOT) in Bemidji on highway construction planning and surveying, and later transferred to MNDOT's St. Paul office.

In 2002, after 20 years working on roads, she transferred to the Aeronautics Office where her knowledge of geology, geography and environmental issues made her a natural for the job. Vesely was able to guide airport operators with their planning and compliance with MNDOT funding requirements. Her skills in coordinating the two elements – funding and airport needs – were central to her ability to get things done. She emphasized long-range planning, allowing



both funding agencies and airports to see 10 or 20 years into the future.

Vesely was appointed Assistant Aeronautics Director under Cassandra Isackson. She then canvassed every airport in Minnesota to help determine their future needs. The FAA was so impressed with her work that the agency allowed her to coordinate Minnesota airports with federal funding needs.

Vesely retired from MNDOT in 2020 after 41 years of service, including 18 years with the Minnesota Office of Aeronautics. She and her husband own and fly a Cessna Cardinal.

Born in DeKalb, Illinois, **Dale E. Klapmeier** (1961 –) attended the University of Wisconsin-Stevens Point, graduating with degrees in Business Administration and Economics. Growing up he built model airplanes, frequented the local airport, and dreamed of designing his own airplane. He started flying at age 15 in a Cessna 140 he and his brother, Alan, bought together. The brothers then rebuilt a wrecked Aeronca Champion and built a Glasair homebuilt aircraft.

In 1984, the Klapmeier brothers founded Cirrus Design Corporation in the lower level of their parents' rural dairy barn. Their first design was the VK30, a pusher-type aircraft,



- ▲ FAA Approved 141 Flight School
- ▲ ATP-R Approved
- ▲ Financial Aid and Veteran Benefits Available to Those Who Qualify



Start Flying on Day One!

IN PARTNERSHIP WITH






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





admissions@academycollege.com ✈ 952-851-0066 ✈ www.academycollege.edu

which they built at their Baraboo, Wisconsin facilities. Along with their aircraft designs, the Klapmeiers pioneered an emergency parachute recovery system for aircraft, designed to lower a nonfunctioning aircraft to the ground, saving the lives of its occupants. The concept has also become a major marketing tool.

In 1998, the Cirrus SR20 was certified, followed by the SR22 in 2000. The company soon outgrew their Baraboo, Wisconsin facilities and moved to Duluth International Airport in Minnesota, and later established another facility in Grand Forks, North Dakota. The SR20 and SR22 feature all-composite airframes, full glass cockpits and side-stick controls. By 2003, the SR22 had become the top-selling general aviation aircraft in the world! The company's most recent design – the SF50 Vision Jet – was certified in 2016. In 2011, Cirrus was sold to China Aviation Industry General Aircraft (CAIGA), but Dale Klapmeier remained the company's CEO until 2019.

Martin Knutson (1930 – 2013) was born in Minneapolis, Minnesota. He graduated from St. Louis Park High School and attended the University of Minnesota, majoring in Electrical Engineering in the Navy's Holloway Plan, which was a program that paid for



college while the student served in the military. While working in the Pacific Fleet during the summer of 1949, Knutson took his first airplane ride in the ball turret of a Grumman TBM Avenger. It was after that flight that Knutson decided it would be better to be in the cockpit where the controls were.

In 1950, Knutson transferred to the Air Force for flight training, where he trained in the T-28 and F-80A. Upon graduation, he was assigned to a jet fighter squadron and deployed to Korea where he flew combat missions in the F-80 and F-86. Following Korea, Knutson was assigned to the Strategic Air Command (SAC) as a fighter pilot stationed at Turner AFB, Georgia, where he flew the Republic F-84, training for long-range nuclear strike missions. In 1955, Knutson volunteered for assignment to the Central Intelligence Agency (CIA) where he participated in the flight testing of the Lockheed U-2, nicknamed "Dragon Lady," a single-engine, high-altitude jet reconnaissance aircraft. He was then deployed to Europe and flew missions over the Soviet Union. Knutson continued to fly covert missions over 'denied territory' throughout the world until his retirement from the Air Force in 1970.

Following his retirement, Knutson joined the National Aeronautics and Space Administration (NASA) Ames Research Center in California as Manager of Earth Resources Projects. There he helped develop airborne remote sensing equipment for observation satellites. He helped modify U-2 aircraft for earth-sensing missions regarding sea and land ice, wildlife habitat, ozone depletion, air pollution, typhoon dynamic structure, and other environmental projects.

Knutson moved on to become the NASA Site Manager at the Dryden Test Flight Facility. This was during the beginning of the Space Shuttle program when most of the Shuttle landings were made at Edwards Air Force Base. At Dryden, he participated in many unique test programs and was responsible for NASA obtaining three SR-71 aircraft for environmental missions, after the Air Force had retired them. At the age of 67, Knutson flew an SR-71 to a speed of Mach 3.275. He retired from NASA in 1997. Knutson served a combined 47 years with the Air Force, CIA, and NASA. He amassed over 4000 flight hours in the U-2 during his 29 years flying the aircraft.

A native Minnesotan, **Timothy C. Callister** (1947 –) was born in Owatonna and raised on a farm in West Concord. At the age of 7, he decided he wanted to be an airline pilot. As a gift from his parents, he experienced his first airplane ride on a North Central Airlines flight from Minneapolis to Rochester. Callister later decided he wanted to become a Department of Natural Resources Conservation Officer; however, world events disrupted that plan. The U.S. involvement in Vietnam was

Airways Aviation Center, Inc.



A&P Mechanic Wanted!

Grand Rapids, Minnesota
A Northern Minnesota Recreational Community

Certified Repair Station
Specializing In General Aviation,
Floatplanes & Some Turbine Aircraft

Salary Based On Experience

Benefits: IRA, Health Insurance,
Paid Vacation & Sick Pay

Send Resume To:
airways@paulbunyan.net

escalating and in 1968, Callister joined the U.S. Army. As a Warrant Officer, he served in the 189th Assault Helicopter Company in Vietnam. During his time in Vietnam, Callister was awarded the Distinguished Flying Cross for his heroic actions in suppressing heavy enemy fire during a rescue mission. He was also awarded the Bronze Star and the Air Medal.

Following his service in Vietnam, Callister returned to Minnesota and attended St. Cloud State, graduating with a degree in Transportation and Urban Planning. While attending the university, he joined the Minnesota Army National Guard and became a helicopter instructor for the 47th Aviation Battalion, St. Paul, and as a member of the 2-147th Aviation Battalion, State Area Readiness Command. He retired from the National Guard in 1991.

In 1974, Callister joined the Metropolitan Airports Commission (MAC) and interned in the planning and engineering department, eventually becoming the Manager of the Reliever Airport System, responsible for six general aviation airports, with 750,000 operations a year. In 1986, he became the Minneapolis-St. Paul International Airport Assistant Airport Director. In 1996, Callister moved into the Airport Director's position, overseeing 250 airport staffers, and was involved in planning, designing and implementation of a \$3.1 billion expansion and upgrade to the airport.

In 2004, Callister retired from the Metropolitan Airports Commission and joined Mead & Hunt as a Senior Project Planner for Aviation Services. He also cofounded the Minnesota Council of Airports (MCOA). Callister is also a member of the American Association of Airport Executives (AAAE), and the Vietnam Helicopter Pilots Association in which he served as President of the Upper Midwest Chapter from 2019 to 2020.

Tim Callister has spent his retirement promoting airport matters in Minnesota by speaking on their behalf, serving as an airport tour guide, and mentoring aviation students in finding careers in the airport industry.

Prior to the induction ceremonies, several scholarships were presented, including two "Sherm Booen Legacy Scholarships" in the amount of \$5,000.00 each, sponsored by Academy College, located in Bloomington, Minnesota. Recipients included Robert Ezike and McKenna Gordon.

To hear the McKenna Gordon and Robert Ezike podcast on the "World of Aviation," go to: <https://am1280thepatriot.com/radioshow/world-of-aviation>

Other scholarships included the "Gift of Wings, Elizabeth Betty Wall Strohfus Aviation Scholarship" presented to Samantha Naples; "Hinz Family Red Tail Scholarship" presented to Jessica Stelton; "Brig. Gen. George Schulstad Scholarship" presented to Jacob Helvick; "Kenneth Dahlberg Family Scholarship" presented to Shoua Vang; and "Minnesota Aviation Hall of Fame Scholarship" presented to Anjhain Ryan.

The master of ceremonies for the event was Al

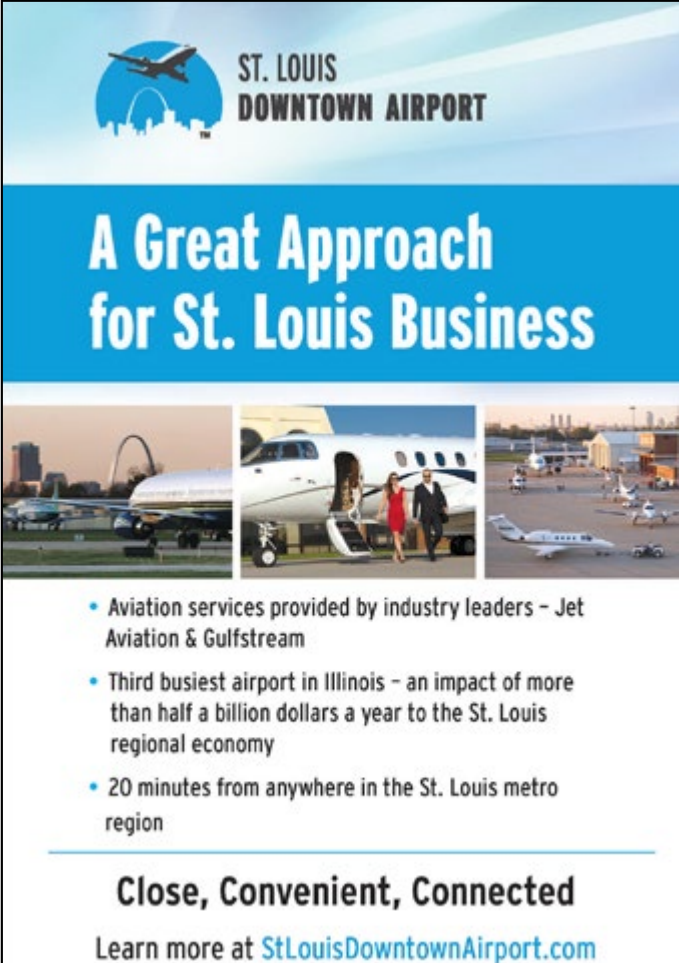
Malmberg, host of the radio program "World of Aviation." The program is sponsored by Academy College and Thunderbird Aviation and is heard each Sunday morning at 10:05 a.m. (CT) on am1280ThePatriot.com (www.academycollege.edu and www.thunderbirdaviation.com). MAHF Board Member Stan Ross narrated each recipient's audio visual.

The MAHF Board of Directors include Noel Allard, Chairman; Terry Baker, Vice Chairman; Carol Cansdale, Secretary; Amelia Halsted, Treasurer; Tim Barzen; Thomas Lymburn; Brandon Montanye; Cheri Rohlfing; Stan Ross; Tom Schellinger; Jim Hanson; and Mary Alverson.

Minnesota Aviation Hall of Fame sponsors include the MSP Airport Foundation (Foundation Sponsor), Delta Air Lines (Forever In-Flight Sponsor), Cirrus Aircraft and Signature Flight Support (Jet-Setters Sponsors), Aircraft Owners & Pilots Association (AOPA) and Wipaire, Inc. (Pioneer Sponsors), and JETPUBS, Inc. and Wings of the North (In-Kind Contributors).

The 2023 Minnesota Aviation Hall of Fame will be held in April 2023 (www.mnaviationhalloffame.org).

Any photos without credit are those of Randy Arneson/Midwest Flyer Magazine. 



ST. LOUIS DOWNTOWN AIRPORT

A Great Approach for St. Louis Business

- Aviation services provided by industry leaders - Jet Aviation & Gulfstream
- Third busiest airport in Illinois - an impact of more than half a billion dollars a year to the St. Louis regional economy
- 20 minutes from anywhere in the St. Louis metro region

Close, Convenient, Connected
Learn more at StLouisDowntownAirport.com

Illinois Aviation Hall of Fame 2022

CHAMPAIGN, ILL. – The 2022 Illinois Aviation Hall of Fame will be held Thursday, June 16, 2022, at the Holiday Inn Hotel & Conference Center, Champaign, Illinois. Inductees will include Doug Kimmel, Donald Kirlin, John Charles Robinson, and Lt. Col. Stephen Willis, USAF Ret. The 2022 “Spirit of Flight Award” will be presented to EAA Chapter 1155 of Mt. Vernon, Illinois.

Doug Kimmel has served as director of the Veterans Airport of Southern Illinois (formerly Williamson County Airport) located at Marion, Illinois since 1998. He has worked tirelessly to improve airline and air cargo service in southern Illinois and has guided the airport through a major runway extension, and the development of the airport’s new modern terminal building. The airport’s Essential Air Service provider, Cape Air, now provides service to both Nashville and St. Louis.

Under Kimmel’s direction, the airport has become a place to honor our veterans. Founded in 2016, Veterans Honor Flight of Southern Illinois regularly organizes Honor Flights for veterans, taking groups of veterans to Washington D.C. Kimmel has served on the board of Veterans Honor Flight of Southern Illinois since its inception. In addition to Honor Flights, Kimmel worked with others to bring airshows to the airport. The airshows occurred from 2000-2004 and then again in 2006.

Donald Kirlin is the founder and owner of Air USA, a United States government contractor that provides an impressive array of tactical aircraft services to the U. S. defense agencies, defense contractors, and foreign governments. He is said to own the “world’s most advanced private air force.” He is an ATP-rated pilot and flight instructor, rated in the Boeing 737, Cessna Citation, L-39, L-59, British Hawk, MiG 21, MiG 29, and is also an authorized instructor for the Experimental L-39, L-59, British Hawk, MiG 21, and



The MiG-21 Don Kirlin of AirUSA imported to the United States. Kirlin is being inducted into the Illinois Aviation Hall of Fame, June 16, 2022.

AirUSA, Inc. Photo

MiG 29. He is also an A&P mechanic and an avid sport skydiver.

Kirlin was the organizer and promoter of the World Free Fall Convention. The World Free Fall Convention was, at the time, the largest gathering of skydivers from around the world and was held annually for 17 years, 1990 to 2001 in Quincy, Illinois and 2002 to 2006 in Rantoul, Illinois.

In 2000, the World Free Fall Convention drew 5,700-plus registrations, people from all 50 states, and 55 different foreign countries. During a 10-day period, there were over 63,000 jumps made. Also, there were 450-plus tandem jumps, 15 Accelerated Free Fall students passed, and \$7,400.00 was raised for various local charities.

John Charles Robinson (1903-1954) was an African American aviator who led the way for generations to follow. In 1931, Robinson and his colleague,

Cornelius Coffey, became the first black Americans to receive their Aircraft and Engine Certification from Curtiss-Wright Aeronautical College (CWAU).

Concerned with sharing the joys of aviation with his peers, Robinson recruited and trained pilots and mechanics first at CWAU, and then formed the Challenger Air Pilots Association. To conduct flight training, Robinson and the Challengers built the first African American-owned and operated airport in the Chicago suburb of Robbins. Unfortunately, the hangar which housed the club's aircraft collapsed in the winter of 1933, damaging their airplanes, and resulting in the closure of the airport.

Fred and William Schumacher were brothers who owned and operated Harlem Airport at 87th St. and Harlem Avenue. After Robbins Airport became inoperable, the Schumacher brothers invited Robinson and Coffey to Harlem. Now that Challenger had a place to go, they still didn't have a hangar or any facilities. Throughout the main flying season, they sponsored many airshows and demonstrations, sightseeing rides, dances, dinners, and any other fundraisers they could. It took perseverance, but the Challengers eventually had their own hangar and several used aircraft restored to flying condition.

Wanting to expand aviation training beyond Chicago, in 1934 Robinson visited his alma mater, Tuskegee Institute, urging them to establish an aviation program. Although they turned down his request, he planted the seeds that later blossomed into the Tuskegee Airmen.

The Challenger Association continued to be a major factor for African American aviation in Chicago until 1939 when it was reorganized with a much wider scope as the National Airmen's Association of America (NAAA).

In August 1935, Robinson left Chicago for Ethiopia to support their fledgling air force against the Italian fascists seeking to colonize the country. His skills impressed Emperor Haile

Selassie and he became head of their air force. Sadly, the country was unable to stand the Italian onslaught. When the country fell the following year, Robinson returned to Chicago, and in 1939, he started the John C. Robinson National Air College and School of Automotive Engineering. In September of 1939, the Illinois Department of Commerce issued a charter to National Air College. This appears to be the first African American aviation school officially chartered in the U.S.

Following the war, Selassie invited Robinson to return. After rebuilding the Ethiopian Air Force, he formed Ethiopian Airlines. Robinson died in an air crash in 1954.

Lt. Col Stephen (Steve) Willis, USAF Ret. is a flight instructor at the Mt. Vernon Outland Airport. He served in the United States Air Force from 1969 thru 1997, flying F-4 Phantoms and F-16 Falcons and then serving as an instructor pilot. Following his tours of duty, he returned home to the Mt. Vernon area and became deeply involved with airport activities and flight instruction.

Willis is current president of EAA Chapter 1155 at Mt. Vernon, where he currently leads the chapter in the restoration of a Pietyou aircraft. He also directs the local Chapter Build & Fly Program for young aspiring pilots to gain building knowledge. Additionally, he served as Explorer Post 1155 Leader for youth, again working to encourage young people in acquiring aviation knowledge and experience.

Willis has also participated in Rend Lake RC Club activities and Angel Flights. He participates in EAA Young Eagles activities as both a pilot and event coordinator and works with the EAA Chapter to assist with coordination at the AirVenture Cup Races and Midwest LSA Expo.

This year's Spirit of Flight Award will be presented to **EAA Chapter 1155** of Mount Vernon, Illinois for its contributions to aviation in Illinois, with a particular emphasis on volunteerism and contributions to the community.

EAA Chapter 1155 was organized in 1996. The chapter's mission is to further aviation in southern Illinois.

From 1997 to 2012, EAA Chapter 1155 hosted the Little Egypt Fly-In and Veterans Reunion at Mt. Vernon Outland Airport. At the height of the event, the ramp contained nearly 25 warbirds (retired and current) and over 75 general aviation aircraft.

Perhaps the biggest contribution of EAA Chapter 1155 is their work at the annual Midwest LSA Expo.

For reservations, visit the Illinois Aviation Hall of Fame website: ilavhalloffame.org. Email questions to groverdkb1@comcast.net or call Tom Cleveland at **815-895-2102**. □

AIRPORT PLANNING • ENGINEERING • REAL ESTATE
SURVEY • DRONE IMAGERY AND MAPPING



BECHER HOPPE

Contact: **Karl Kemper, PE**
Airport Services Manager
kkemper@becherhoppe.com

715-551-5507 • www.becherhoppe.com • Wausau, Wisconsin



Dave Franson



Retiring Wichita Aero Club President Dave Franson (center) is flanked by his successor, Nicole Alexander (left) and WAC Chair Ashley Bowen Cook of the Greteman Group (right).

Wichita Aero Club President Dave Franson To Retire... Nicole Alexander Named Incoming President

WICHITA, KAN. – The Wichita Aero Club (WAC) board of directors announced April 26, 2022, that founding member and president, Dave Franson, will retire June 1. Franson, who has headed the organization since its founding in 2008, will transition to emeritus status and serve as a member of the board going forward. The board has selected Nicole Alexander to succeed Franson as president.

“Dave Franson was among the founding members of the Wichita Aero Club and has done a remarkable job in guiding the organization as executive director and president during its first 14 years,” said Ashley Bowen Cook, WAC Chair and Greteman Group Vice President. “We are pleased that he will remain involved with the club and extremely grateful to him for his leadership and commitment to WAC and Wichita over the years. We wish him all the best in his retirement.”

“I have had the great privilege of being involved in the aviation industry for almost 50 years,” Franson stated. “It has truly been a blessing and a calling for me as I have worked with and learned from an exceptional array of outstanding leaders. Being a part of the Wichita Aero Club has been a distinct honor and privilege – a fitting cap to a most enjoyable career. I have great confidence that Nicole and the WAC board will continue to grow and expand the Club’s contributions to the Air Capital and the industry.”

Alexander brings a wealth of experience to the Wichita Aero Club. Earlier this year, she started her own consulting business, Nicole Alexander Co., after more than 15 years in the public and private sectors. A graduate of Kansas State University, she joined the staff of then-Kansas First District U.S. Congressman Jerry Moran as press secretary before moving to Hawker Beechcraft Corp. She spent nine years there leading communications and public affairs as the company transitioned to Beechcraft Corp. and subsequently became part of Textron Aviation. Most recently, she was the Vice President of Marketing and Communications at AGH CPAs & Advisors.

The Wichita Aero Club was established in 2008 to foster and promote interest in aviation, to provide a forum that focuses on the industry’s issues and achievements, and to bring together those with a passion for flight in an environment that expands and enhances professional relationships and furthers cooperation and understanding. Learn more at wichitaero.club. □

AIRCRAFT WINDOW REPAIRS
FAA C.R.S.: #XK3R974L/EASA.145.4359
310-212-7173 • info@awrepairs.com
www.aircraftwindowrepairs.com

A photograph showing a close-up of an aircraft window being repaired with a specialized tool.

**“De-Ice Strip
Electrical
and Surface
Repair
Services”**

New Director Appointed At St. Louis Regional Airport

BETHALTO, ILL. – The St. Louis Regional Airport Authority has appointed Daniel Adams its new director effective April 4. Adams, a native St. Louisan, is returning to the area after a decade working in airport operations in Augusta, Georgia and Columbus, Ohio.

“Dan’s proven airport operations experience, coupled with his energetic leadership attitude, will be a huge asset for our airport and our communities,” said



Daniel Adams

Airport Authority Chairman Wendell Ross.

“I’m truly excited about the opportunity to come back home, lead the airport and become a part of the community,” said Adams. “The airport is the crown jewel of the area and has tremendous potential for growth and economic development. I look forward to the challenge.”

St. Louis Regional Airport provides more than 1500 jobs with an annual economic impact of \$480 million, serving a diverse clientele from private aviators to Fortune 500 companies, the U.S. military, and regional aircraft maintenance, repair, and overhaul customers. □

GAMA Mourns Passing of Former U.S. Secretary Norman Mineta

WASHINGTON, D.C. – Former U.S. Secretary of Transportation, Norman Mineta, 90, died May 3, from a heart ailment in Edgewater, Maryland. Commenting on Sec. Mineta’s passing, General Aviation Manufacturing Association (GAMA) President and CEO, Pete Bunce, issued the following statement:

“Secretary Mineta was an incredible statesman and a true giant in all facets of transportation where he specifically championed safety and security of the aviation industry. He broke racial and political barriers as he worked for the betterment of the United States. Following the 9/11 attacks, he was a driving force in ensuring the security of America and restoring confidence in our aviation system. We are forever grateful for his dedication to advancing transportation and seeking bipartisan solutions. On behalf of the entire staff and membership of GAMA, I extend our deepest and heartfelt condolences to Secretary Mineta’s family and friends, and his former cabinet and congressional colleagues. Secretary Mineta will forever be remembered for his leadership, grace, political acumen, and service to country.”

Secretary Mineta was U.S. Secretary of Transportation from January 25, 2001 – July 7, 2006, under the Bush Administration. Following his service with the Bush Administration, he was vice chairman of the international public relations firm Hill Knowlton Strategies. Earlier in his career, Mineta was mayor of San Jose from January 9, 1971 to January 9, 1975, and served in the U.S. House of Representatives from January 3, 1975 to October 10, 1995. He resigned his seat mid-term to accept a position with Lockheed Martin before being appointed U.S. Secretary of Transportation. □



Norman Mineta

Letters To The Editor

Hi Dave:

Thanks to the advertisement I ran in *Midwest Flyer Magazine*, I sold my island in Lake of the Woods, within 3 days of the magazine going out. I received multiple offers, with the sale concluded within one week. Now that's effective advertising!

Ray Rubin
Eagle River, Wisconsin

For Sale

Undeveloped Privately Owned Island

Approximately - 53.8 Acres

SOLD!

PRICE
US \$480,000
Canadian \$600,000

- Lake of the Woods
- Ontario, Canada
- Approximately 10 miles due South of Kenora
- Approximately 429 miles from Minneapolis, MN (7 hours by car)
- Approximately 764 miles from Chicago, IL (12 hours by car)
- 2021 Property Taxes
US \$462
Canadian \$526

N. Allie Island **CONTACT 715-617-8163**



Schweiss Doors founder, Mike Schweiss, stands in front of a large bifold liftstrap door. These doors have come a long way since the company was established in 1980. Thousands of bifold and hydraulic doors are now shipped worldwide from their factory in Minnesota.

The Genesis For Schweiss Doors Began On A Dance Floor Four Decades Ago!

by Pat Schmidt

Everybody seems to ask me how Schweiss Doors got started. It was 1980 at a wedding dance,” said company founder, Mike Schweiss. “I still remember that night at the Gibbon Ballroom where a gentleman asked me, ‘Mike, you build lots of different things. Are you willing to look at manufacturing bifold doors?’ I said sure! He told me to stop in and see him the following week. I never got the chance; the man died of a heart attack that evening on the dance floor. But his idea didn’t!”

Never one to sit on his laurels or be labeled a “laid back” kind of a guy, Mike grew up on his family dairy farm, where the huge Schweiss Doors factory is now located, between Hector and Fairfax, Minnesota, about a two-hour drive southwest of Minneapolis.

Schweiss started off manufacturing and selling farm equipment, such as the “Schweiss Chicken Plucker!” It was the Schweiss Chicken Plucker that gave Schweiss

name recognition. At that time, it was just Mike and three employees working at the plant.

As a licensed pilot and farmer, Mike knows what many of his customers are looking for in a door, but the market has grown beyond airports and agriculture.

“One of our first challenges was understanding the marketplace and where these doors could be used,” said Mike. “We found out the uses were endless, with opportunities for all sizes of doors – big, small, and heavy duty.”

The first Schweiss door manufactured was a 12 x 12 ft. bifold installed on a county highway department shed. The door is still in operation, and today, Schweiss Doors are the most recognized brand name in the hydraulic and bifold door industry.

“We now cover the entire gamut of the door building business including preparing bifold and hydraulic designer doors to accept many decorative finishes, including glass. These doors are appealing to look at and customers, builders and architects are loving them,” said Mike.



Schweiss Doors

Since the inception of Schweiss Doors over 40 years ago, the factory has grown exponentially from a family farm operation, to what it is today. A few years ago, a new 80 x 250 ft. state-of-the-art factory electrical facility and loading dock was added.

Quality Control Tells It All

Schweiss manufactures its doors in one location, and doors are the company's only product and they do it well. They know if a company builds only a few doors on the side of another business, they just never get good at it. Other manufacturers brag about the number of doors they sell and how many employees they have. "We like to brag about the quality of our doors," said Mike.

A lot of the design ideas customers provide, Schweiss can execute under its controlled environment without handing the job over to different weld shops in hopes they follow the plans correctly. "Before you know it, these shops are no longer in business," said Mike, "so the customer is left hanging with no one to service the door following its installation." Quality control is high on our list and our service is impeccable, resulting in the best quality. Our entire Schweiss team is building more doors better and stronger every day!"

Marketing Is Where It Is At

Mike will tell you that marketing is where it is at. The company website explains this and has helped to expand

sales worldwide. Some of these locations are in Europe, Asia, South America, Saudi Arabia, Costa Rico, Australia, Canada, and Mexico.

Today, Schweiss manufactures three styles of doors -- the one-piece hydraulic door, the bifold liftstrap door, and designer doors which cater to businesses, municipalities, sporting venues, museums, and high-end residences.

You'll see Schweiss doors at many prominent locations throughout the country including professional and National Collegiate Athletic Association (NCAA) sports facilities, restaurants, museums, and churches.

Production at Schweiss expanded when requests started coming in for elaborate, custom-made specialty doors, which is now the Schweiss Designer Door Division. Schweiss Designer Doors can be seen on multi-million-dollar homes, numerous museums, the Guthrie Theatre in Minneapolis, Cape Canaveral, the Red Bull Headquarters, New York Yankees stadium, the new Columbus, Ohio crew soccer stadium, AT&T "Giants" baseball stadium, Stanford University, Napa Valley vineyards in California, Cycle City in Hawaii, the Ritz Carlton Hotel in Shanghai, Old Navy and Under Armour, to name a few well-known sites.

The biggest square foot bifold door to date is a massive 90 ft. wide x 61 ft. tall door delivered to Cape Canaveral in



Manufacturing "aircraft hangar doors" constitutes a major portion of Schweiss Door hydraulic and bifold door sales. John Mosley, owner of John's 360° Coatings in Clinton, Mississippi, built this 100 x 150 ft. hangar complete with a Schweiss Hydraulic 115 x 23 ft. door. Four AeroShell Aerobatic Team aircraft are shown here in front of the hangar.



Farmers love both styles of Schweiss doors, bifold and hydraulic. Three generations shown on this family farm stand in front of their new pole barn with a 40 x 18 ft. Schweiss bifold liftstrap door.

Florida for its space rocket assembly plant. Hydraulic and bifold hangar doors have exceeded 115 ft. in width. The largest single bifold door project was delivered to Bult Field near Chicago, a privately-owned airfield, for an order of 145 t-hangar doors, all 12 x 40 ft.

Schweiss Doors has revolutionized the bifold door industry with the patented and famous Lift Straps and Strap Auto-Latch systems. Cable-lift bifold door owners, regardless of who manufactured their door, are asking Schweiss Doors to retrofit their higher maintenance cable doors with a lift strap conversion. Since then, many other improvements, upgrades and patents have been added to both styles of doors over the years.

Dealer & Installer Base Keeps Growing

"We have thousands of dealers positioned throughout the United States, noted Mike. "Over the years, word of mouth has sold 99 percent of our 70,000 hydraulic and bifold doors. Once a customer sees or buys our doors, they encourage and send more customers our way.

"We also have experienced in-house install teams and strategically located installers throughout the U.S. and abroad who can install, service, and take care of customers miles from the factory."

Schweiss Doors Is A Family-Run Business

Schweiss Doors is acutely aware that a successful company is only as good as the people who work there to ensure one-stop, one-call, fast-door delivery. Schweiss realized early on that to be the best, you must have highly skilled and committed employees, and sometimes these employees are family members or employees who become like family.

"We take pride in the fact we have a design team ready to deliver doors of any size, no matter where our customers are," said Mike. "We have the solutions to make every door project

a success."

Skilled programmers, and inventory and quality control managers at Schweiss developed a unique computer program that details steel door components, right down to the heavy-duty hydraulic hinges, nuts, bolts, and total hardware of each door. Detailed hydraulic door and bifold door quotes and AutoCad specs can be sent out in a matter of minutes to building contractors, architects, and end users.

Here's a quick look at the duties some of the key people at Schweiss accomplish day-in and day-out:

Mike's brother, **Dave Schweiss**, has been with the company since its inception and continues to be a driving force guiding and overseeing many of its various departments. You can see Dave at many trade shows throughout the United States, especially those centering on agriculture and aircraft hangar doors. Dave is a question-and-answer man, and maintenance expert who in many cases can deliver a solution over the telephone, and if need be, a personal visit. He can guide a door installation, physically help with an installation, measure up door openings or give advice on structural headers to support doors.

Julie Schweiss knows the business inside and out and has dealt with many loyal customers over the years. Her expertise has guided the production department by providing door quotes, while educating and advising potential buyers, keeping their best door solutions in mind.

Mike's daughter, **Lark Schweiss**, will soon be joining the Schweiss marketing team.

Brook Schweiss Mead is one of the highly knowledgeable salespeople who responds to inquiries. Brook has been at Schweiss Doors for nearly 20 years coordinating timely shipments and ensuring fast two-to-three-week turnaround delivery times of doors shipped across the country and overseas. She also handles accounts receivables, and schedules company airline flights.

One of Schweiss Doors' newest employees is **Corey Mead**, a licensed electrician with over 20 years of experience.



The Designer line of commercial and residential doors has taken Schweiss Doors to another level of engineering expertise. The very notable Sacramento Kings Golden 1 Center has five bifold, strap latch main entrance doors made with a combination of steel and aluminum frames. Three of the doors measure 29 x 41.5 ft., and the other two are 29.4 x 41.5 ft.

©Paul Crosby Architectural Photography

His duties as a job supervisor at Schweiss is to oversee all aspects of the door building and daily manufacturing process. He is well versed in the operation of every piece of equipment, from the Plasma cutter table to robotics, making sure all door parts are in stock.

What's Really Important

"As owner of the company, part of our success is because day-by-day, I'm in the trenches with my employees, always the eyes and ears to new suggestions. The culture that fuels our company has always been to have happy customers... we're not about the money. Our product sells itself. We've got numerous patents to back up our product; innovation that illustrates we are totally ahead of the power curve on design and are leaders in the fast-moving door market.

"Schweiss Doors takes pride in the fact that over the past four decades we have learned that listening to our customers has been a stellar source of new and better ideas. Our company now employs over 50 skilled people who are good thinkers and hard workers," noted Mike.

"Schweiss has an unparalleled history of successful projects ranging from modest garages and large-scale manufacturing warehouse operations to airplane hangars, boat marina storage facilities, and residences. We have architects, dealers and building suppliers calling us and ordering our doors because they know when they see a Schweiss bifold or hydraulic door,



Mike Beranek stands by the new CNC plasma cutter that has made his job easier and more efficient than previous, more labor-intensive methods. When he first started working at Schweiss, many of the same type parts were manually cut with a chop saw, and then later with a band saw, before the first plasma cutter was installed.

IT'S ALL ABOUT QUALITY!

"We'll put the "WOW" factor in your doors. There's simply no other company better equipped to handle your upcoming door project, which is why when you're looking for quality – looking for price – you'll WANT a Schweiss door on your building!"

For additional information, go to
<https://www.bifold.com/>





Morning Mission

by Dean Zakos

© Dean Zakos 2022 All Rights Reserved

I am sitting uncomfortably in my F4U-1 Corsair, “*Dee-Light*,” canopy back, waiting for the signal to start engines. I am a pilot in VMF 213, the “Hell Hawks.” The heat and humidity on Banika in the Russell Islands are brutal.

It is June 1943.

I am sweating like a horse through my khaki flight suit. Perspiration is stinging my eyes and running down my back, soaking my skivvies. It should be a little cooler when we get into the air. I have on my cloth helmet with earphones, goggles pushed up on my forehead, parachute, Mae West, survival pack, and a brown leather shoulder holster for my .38 revolver. Some of the pilots carry .45 semi-automatics, but the .45 is heavy and bulky. In any event, if either weapon gets wet, it will rust in a couple of days in these conditions. I stopped using leather watch straps; they rotted quickly. I use a stainless-steel band now. I am also wearing leather gloves. They are uncomfortable in the heat, but I have witnessed the burned hands of pilots, so I choose to

wear them.

The fighter strip is 4,200 feet long, 150 feet wide, made of crushed coral. Eight Corsairs will fly the mission this morning, two divisions of four each, two flights in each division. I will be on the wing of our skipper, who is lead. I have not flown for a few days. I had a head cold and my sinuses were blocked. Doc grounded me. Before that, I had one “knucklehead” mission (slang for a milk run) last week. The week before, two missions, but no enemy contact. Since arriving in the Solomons in April 1943, we have destroyed more of the Japs’ airplanes than they ours. We also have lost a fair number of planes and pilots to weather and to crackups on takeoffs or landings. The weather has to be good enough to fly and the enemy has to be where we think they will be. Our squadron has seen some action, and I am anxious to do my part, but schedules and luck have a lot to do with who tangles with the enemy. I have a feeling that today will be my day.

Dee-Light is named after Delores (Dee), my girl back home. I didn’t know how serious I was about Dee until I got out here and we started exchanging letters. She writes at least twice a week; as often as my mother. I always knew Dee started where other girls left off with looks and brains, but I have only really come to know her better through our



Dean Zakos

correspondence. I share my hopes and dreams with her, as she does with me. I am in love with her. I think of her often. If and when I return home, I want to marry her.

Our squadron's Corsairs are hand-me-downs from the Navy. The Navy intended the Corsairs to be the replacements for the older F4F Wildcats on its carriers. However, the Corsairs proved to be difficult to land on carrier decks. High gear struts caused bounced landings, the long nose was difficult to see over, and the cowl flaps, when opened, allowed oil to coat the windshield. We were flying Wildcats until the Navy decided the Corsairs were better suited to shore-based operations. When the Corsairs arrived in February 1943 while we were on Espiritu Santo, our Marine mechanics quickly fixed the problems. They let a little air out of the tires to reduce bouncing. The cowl flaps issue was solved by disconnecting the hydraulic arms and placing duct tape over a couple of cowl flaps that opened directly over the nose. The Corsair is a great ship to fly, very fast and maneuverable; better than anything the Japanese have.

The F4U is a big airplane. It is powered by the Pratt and Whitney 2,000 hp, 18-cylinder, Double-Wasp radial engine, turning a three-blade propeller 13 feet in diameter. Gross weight is 12,400 pounds. Top speed is about 400 mph. Each inverted gull wing contains three M2 Browning .50 caliber machine guns, containing 400 rounds for near and 375 rounds for outer guns. That sounds like a lot of ammunition. In reality, with all six guns firing, it is about 30 seconds worth.

At last, the signal comes to start engines. Throttle full forward. Mixture in idle/cutoff. Prop in low pitch/high RPM. Blower in neutral. Fuel on the reserve tank. Boost pump on and fuel pressure to 17 psi. Prime and then hold the starter in until the engine smooths out. The R2800 whines, coughs, belches smoke, catches. I quickly retard the throttle and move the mixture forward to automatic rich. In a moment, the big radial steadies itself. After a brief warm up and mag check, we taxi into our positions, and I run the takeoff checklist.

I am the second plane into the air. Gear up. Flaps up. Throttle at 44 inches of manifold pressure and prop at 2,550 rpm. I trim for 145 mph, best climb. When all eight Corsairs are off the deck, we form up and head for our destination, about 90 minutes away, northwest of Banika. As we pass over, the green of the jungle and the blue of the water melt into each other at the shoreline's edge. Our route will be mostly over water. We will use compass headings and strip maps to navigate.

There is a broken ceiling this morning, with flat cloud bases at about 1,200 feet. We are flying underneath. Clouds are forecast to be scattered by the time we are over the target. I find it easy flying under the clouds, as the cloud layer above and the ocean below bracket the nose of the Corsair and present an easy sight picture to monitor. We are hoping to surprise the Japanese this morning. Their airstrip is not a major enemy base, but we should find some aircraft on the ground or in the air. Plan is for the two divisions to come in from different directions. My division will approach from

south to north; the other division from east to west. If our timing is good, we will be over the airstrip first, with the second division coming in as we finish our first pass.

I can see the enemy-held island on the horizon now, low above the water, jungle-covered, some higher ground to the southeast. We are level at about 1,000 feet above the water. The Major calls to move into positions for the strafing run. I nudge the throttle back slightly and *Dee-Light* slides off the skipper's wing to provide more separation. We will commence our run flying single file in trail. The other division breaks off to our right to move into position to start its approach from the east. My head is on a swivel. Other than our Corsairs, I see no aircraft in the sky. We cover the distance to the airstrip quickly. The skipper starts a shallow climb through the thin clouds. I slide my throttle forward to keep my spacing and follow him. Through large breaks in the layer, I see the clearing in the jungle up ahead, just inland from the white sand beach. That is the airstrip. The skipper starts down. I follow him. The second flight in our division follows us.

The single runway grows larger in my windshield. Gunsight on. My heart is racing; adrenaline pumping through me. All my senses are heightened. This is what I have trained for. I am ready. I don't think about getting killed or wounded. I think about not screwing up and letting my squadron mates down.

Our attack appears to have taken the Japanese completely by surprise. The airstrip looks quiet and sleepy. No antiaircraft fire. A few Japanese walking or standing in the open. I scan the field looking for targets. The obvious one is a Mitsubishi A6M "Zeke" sitting next to the runway, dull green/gray with faded yellow paint on the wing leading edges. The Japanese have become adept at camouflage and hiding their aircraft. The Zeke is in the open.

The Major has also spotted the Zeke. I can see, as he lines up, that will be his target. When he is in range, he lowers his nose and commences firing. I watch smoke trail from his guns. The shell casings flash in the sunlight as they are ejected and tumble from the bottom of his wings. He expertly directs his fire up to the Zeke, then holds it there for a moment. The Jap fighter visibly shakes under the barrage of the skipper's six machine guns. Pieces fly off. Sections of the Zeke disintegrate. It is a smoking wreck.

I search frantically for a target. I find one. In the tree line. A Mitsubishi G4M "Betty," painted in mottled greens and grays. Covered with some palm tree branches, its tail tucked into the dense jungle. I can just make out its lines and twin engines. I push the stick forward and line up *Dee-Light's* nose on the Betty. It rapidly fills my gunsight. Now! I intentionally fire in front of the Betty and walk my shells up to it. Dirt and debris kick up 20 or 30 yards in front of the Betty's nose. Flashes and strikes erupt all over the front of the bomber. I push on the stick and tap right rudder in an attempt to direct my guns down the side of the fuselage. It works. Multiple hits on the left side of the fuselage, near the engine nacelle and wing root. The Betty explodes in flames. I used about 10

seconds of my ammo – a third of what I have.

The Betty is my first victory. Although it was destroyed on the ground, it still counts in our squadron's total. I am elated, but I don't want to lose sight of the skipper, who now is over the jungle, banking left, and starting to come around for a second pass. We have been trained to come in low and fast, and to stay low and fast. The Japanese gunners have come to life and, as *Dee-Light* whistles over the burning Betty, I am suddenly aware that the sky is now filling with orange balls and streaking red tracers coming up at me. Staying low until well over the jungle, I follow the skipper. As I bank to the left and look over my shoulder, I see that the other flight is also having some success, with another column of smoke rising from the tree line adjacent to the runway.

I turn my head from side to side and look over *Dee-Light* quickly. No damage. Engine instruments, hydraulics, fuel, are all good. We gain some altitude as we turn south, and I can see the second division in the distance, descending out of the scattered clouds from the east. On this pass, the Japanese show us they can put up a fight. Streams of tracers are crisscrossing in front of me in "X" patterns. I do not spot any aircraft that are not already burning. Clouds of smoke are now obscuring parts of the airstrip. I cannot identify any of the antiaircraft gun emplacements. Instead, I quickly choose as my target a ramshackle wooden structure with a windsock mounted on a pole on the roof. By the time I have located it, banked *Dee-Light* into a shallow turn, and lined up, I have too little time left. I press the trigger on my control stick, but my aim is hurried. I feel the six Brownings vibrate *Dee-Light's* wings and airframe. My fire misses the mark. I watch the lines of my tracers uselessly dig up turf.

As I scan the sky to rejoin the skipper – "Thump, thump, . . . thump!" *Dee-Light* shudders. I'm hit! Right wing good. Left wing – three jagged holes through the top of the wing, each about baseball size. The hits are just inboard of the wingtip, aft of the leading edge. Cautiously, I move the stick from side to side. The holes do not appear to have caused any loss of control. If this is the extent of the damage, I can easily make it back to base.

I locate a Corsair in the distance in front of me. I push the throttle in, make up the distance, and slip into position off the skipper's wing. He gives me a smile and a thumbs-up. We take up a heading toward home. The other flight and division are catching up and filling in behind us. From what I can see, it looks like one Corsair may be missing.

My best friend Tom, a Second Lieutenant like me, is in the other division. I have not caught sight of him yet. Tom and I met during flight training. We have a lot in common. I attended Marquette University in Milwaukee for three semesters, until the war came. I volunteered in February 1942. Tom, from Chicago, had a few semesters in at Notre Dame, and also volunteered at the same time. I wanted to serve my country and I knew I wanted to fly. After looking things over and talking with my parents, I stood in line in front of the Marine Corps recruiting office because of the

Marines' reputation and, to be honest, Marine dress blues are swell-looking uniforms. No regrets with my choice.

Tom and I attend Mass on Sundays when our duty rosters permit, and often spend free time together. Joe E. Brown, Jack Benny, and Artie Shaw and his orchestra will be part of the USO show coming to the island next week. We're looking forward to it.

Late one night a few days ago, after sitting in our tent drinking beer (no mission scheduled for the next day), Tom confessed he wanted to get something off his chest. "Don't mention what I am going to tell you to the other fellows," he pleaded. I assured him I would not. Tom proceeded to explain that a week ago, while on a combat patrol mission, something had happened.

"I was separated from my flight and heading back to base. I was still over land, flying low. As I came up over a ridge line, there was a shallow valley with a river winding through it." Tom's voice lowered. "There were 30 or 40 Japanese soldiers, naked or in skivvies, standing in the water bathing or kneeling on the river's banks washing their clothes. There was no cover for a couple of hundred yards in any direction. I must have approached them downwind; they never heard me coming. When I appeared over the top of the ridge, they just froze, looking up at me, terrified, mouths open. I had ammunition left in my guns. I placed them in the center of my gunsight." Tom hesitated for an instant. "I could not bring myself to open up on them. Had I pulled the trigger, I could have torn them to bits."

Tom continued, "When I left for California to ship out, my mother and father took me to the train station to see me off. On the railway platform, I remember tightly grasping my dad's hand. He placed his other hand on my shoulder. Our eyes met. My dad is not an emotional man, but I could tell his eyes held tears. He said two things to me. He told me, "Son, come back to us, and make us proud."

"If I had slaughtered those soldiers in that river, and if I returned home, I don't think I could ever look my father in the eye again. I will take a man's life in combat, but not like that."

"When I landed, I went immediately to Headquarters and reported the estimated number and location of the Japanese soldiers. That's all I reported," Tom concluded. He was holding his head in his hands. "Do you think I did the right thing?"

Tom looked up plaintively at me. "What would you have done?" he asked. I knew his question was coming. I took a moment to respond. "Tom, I don't know if there is a right answer. We're out here to kill the enemy and win the war. Almost anything we do that advances that purpose is acceptable. I'm not sure if there is a right or wrong answer when our lives are on the line and our country is at risk. On the other hand, you and I have heard the stories about what the Japanese do to civilians and prisoners of war. I like to think we are better than that. What is the point in winning if we are not better than that?"

In the end, I could not hold Tom's decision against him. Out here, you are constantly required to make fateful choices, quickly and without any time for contemplation, and are often second-guessed later by others who were not there. "Tom, if I was in the same position you were in, I would like to think that I would have done exactly what you did." My answer seemed to satisfy him. We left it at that.

When I landed *Dee-Light* back on Banika, I started making inquiries about Tom as soon as I could get down off the wing. One of the pilots from the other division said he saw Tom's plane get hit by antiaircraft fire. Some pilots heard Tom make a terse radio call, "... losing oil pressure," and his Corsair was observed heading out to sea, low over the water, trailing heavy black smoke.

Tonight, I said a rosary for Tom's safe return. I prayed he survived bailing out or ditching. I hope he can be found.

With Tom gone, there are only 11 original members of our squadron left.

EDITOR'S NOTE: Dean Zakos (Private Pilot ASEL, Instrument) of Madison, Wisconsin, is the author of "Laughing with the Wind, Practical Advice and Personal Stories from a General Aviation Pilot." Mr. Zakos has also written numerous short stories and flying articles for *Midwest Flyer Magazine* and other aviation publications.

DISCLAIMER: This article involves creative writing, and therefore the information presented may contain

fictional information, and should not be used for flight, or misconstrued as instructional material. Readers are urged to consult with their flight instructor about anything discussed herein. □

Letter To The Editor:

Dean Zakos' story "Pancake Breakfast" (April/May 2022 issue) was one of the best written general aviation "slice-of-life" stories I have read. What is disheartening to me is the utter lack of these kinds of stories in major national publications. Please encourage Mr. Zakos to submit his story to some of this country's larger publishers, e.g. the *WSJ*, *NY Times*, *Time* magazine, and others.

It would be so nice to have the world of general aviation exposed to a larger portion of our countrymen and women. And thank you Mr. Zakos for sharing your excellent piece with *Midwest Flyer Magazine* readers.

Very kindly,
Joe Allen

Anoka County-Blaine Airport (KANE)
Blaine, Minnesota

Good Reasons *Midwest Flyer Magazine* Is Now Digital

1. Convenient: No more waiting for your print copy to arrive. Your digital issue will be waiting for you in your email inbox each month.

2. Dynamic: Flip through the digital pages and see your favorite columns and feature articles come to life!

3. Video: You're just a click away from videos and podcasts that accompany select stories and advertisements.

4. Resources: See an ad for a product or service you're interested in? Learn more about it in seconds, by simply tapping or clicking the ad or link.

5. Reduced Cost: For both readers and advertisers. *Midwest Flyer Magazine* now provides FREE ONLINE/DIGITAL SUBSCRIPTIONS, so ***there is no cost to readers!*** Share the link to your favorite articles with your friends, associates and customers and encourage them to [subscribe FREE OF CHARGE](#).

6. Archived Issues & Articles: *Midwest Flyer Magazine* has an extensive library of published issues and articles at www.midwestflyer.com. Either type the name of the person, topic, or subject in the "Search Box" on the Home Page or go to the "Archives" section to locate your favorite column, feature article, headline, podcast, section, news and information from the Wisconsin and Minnesota State Aeronautics Offices, or previously published magazines since 2006.

SUBSCRIBE NOW @ MidwestFlyer.com

Enjoy your [FREE SUBSCRIPTION!](#)



Rare P-47 Thunderbolt To Join CAF Airbase Georgia's Fleet of Warbirds

PEACHTREE CITY, GA – The Commemorative Air Force (CAF) Airbase Georgia is acquiring a rare World War II P-47 Thunderbolt as a long-term restoration project. The P-47 will join the noteworthy fleet of operating aircraft, including its SBD Dauntless, P-51 Mustang, FG-1D Corsair, and P-63 Kingcobra.

Weighing 10,000 pounds empty, the Thunderbolt was the largest single fighter built during War. The aircraft was effective as a short-to-medium range escort fighter in high-altitude air-to-air combat and ground attack in both the European and Pacific theaters. A total of 15,636 Thunderbolts were built by Republic Aviation between 1941-1945, but only four remain flying today. The aircraft coming to Airbase Georgia did not see fighting during the war, but it was used effectively in Nicaragua and Guatemala in the 1950s. It was the last of its type to record an aerial victory, during a dispute between Nicaragua and Costa Rica in 1955.

The CAF acquired the aircraft and brought it to the United States as part of its early fleet building prior to 1970. It was heavily damaged when it caught fire during takeoff

about 10 years ago, severely burning part of the fuselage and the right wing. The P-47 had been undergoing preliminary renovation at the CAF SoCal Wing in California. The rebuilt sections and parts will be shipped to Airbase Georgia to complete the restoration over the coming few years. When renovation is completed, the CAF expects the aircraft to be in demand for airshows around the country.

CAF Airbase Georgia, based in Peachtree City, Ga., was founded in 1987. The airbase is one of the largest units of the Commemorative Air Force (CAF). The group maintains and flies seven vintage military aircraft including a P-51 Mustang, an FG-1D Corsair, an SBD Dauntless, and a P-63A Kingcobra.

The airbase, which is composed of more than 400 volunteers, has hosted WWII Heritage Days since 2003. The organization is also a founding partner of the Georgia WWII Heritage Trail, launched in 2021. The airbase is part of the CAF, a non-profit, tax-exempt organization that relies on contributions of time and funds to carry out its mission (<https://airbasegeorgia.org/>). □



New Carbon Cub FX-3 Raffle To Benefit Alaska Airmen's Association

ANCHORAGE, ALASKA – A brand new 2022 Carbon Cub FX-3 was given away as the Grand Prize in an annual raffle to benefit the Alaska Airmen's Association and the many general aviation programs it supports throughout the state. The third generation Carbon Cub, produced at CubCrafters in Yakima, Washington, was flown to the association's Lake Hood headquarters in Anchorage for the May 8th raffle at the Alaska State Fairgrounds during the Great Alaska Aviation Gathering tradeshow.

The airplane (N751AK) was built as an educational experience for youth members of the Airmen's NextGen Club through the CubCrafters amateur builder assist program. "This is the first time we have ventured into the realm of experimental amateur-built aircraft, and we couldn't be more excited to be collaborating with the leading manufacturer of the modern Super Cub," said Abby Austin, Executive Director of the Airmen's Association. Travel for the amateur builders participating in the CubCrafters program was provided by Alaska Airlines, another program sponsor.

The Airmen's Association annual raffle is the largest general aviation fundraiser in Alaska. All proceeds from the raffle fund the majority of the association's annual operations, including maintaining access to the places general aviation pilots love to fly, improving safety infrastructure across the state, building the Alaska aviation community, and inspiring young people to pursue their way of flight.

The founder of CubCrafters, Jim Richmond, was born in

Alaska, had a deep connection to the community of aviators in Alaska, and knew their needs. The airplane given away, the Carbon Cub FX-3, was designed specifically with the Alaska pilot in mind, and Richmond really considered it the ultimate Alaskan bush plane.

Building this airplane was a team effort and several other leading aviation companies partnered with CubCrafters to support this effort for the Airmen's Association. Hartzell Propeller provided the new Pathfinder three-bladed composite propeller, Lycoming Engines built the lightweight CC363i 186 hp fuel-injected powerplant, the IFR capable G3X glass panel avionics came from Garmin, and ACME Aero supplied their Black Ops suspension for the build. In addition, Alaska Aircraft Sales, the local CubCrafters Authorized Service Center located on Lake Hood, is donating the first year of scheduled aircraft maintenance.

The FX-3 is the most Alaska-capable Carbon Cub offered by CubCrafters. With almost 1000 lbs. of useful load, over 750 miles of range, and big tire cruise speeds in excess of 130 mph, the aircraft can still land and takeoff from even the most primitive of landing strips in under 200 feet. There just isn't a more capable airplane for backcountry adventure.

For information on the 2023 raffle, refer to the Alaska Airmen's Association website: <https://alaskaairmen.org/raffle/>

For additional information on CubCrafters, visit their website: <https://cubcrafters.com/>



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.

JUNE 2022

- 2* **WASECA (KACQ), MINN.** - Fly-In/Drive starting at 5:30-7:30pm rain or shine. Bring your own meat/drink/ dish to pass. A grill and paper products will be provided. Contact: David Ziegler [507-838-8915](tel:507-838-8915) or Andrew Fisher [612-743-2253](tel:612-743-2253).
- 4 **MILWAUKEE (KMWC), Wis.** - Flour Drop Contest 10am Lawrence J. Timmerman Airport. Timmermanairport.com [414-461-3222](tel:414-461-3222)
- 4* **AMERY (KAHH), Wis.** - 30th Annual Pancake Breakfast 7-11am. Contact: Paul Isakson, iker@amerytel.net, [715-554-3858](tel:715-554-3858)
- 5* **REEDSBURG, Wis.** - 70th Annual Reedsburg Community Fly-In, Drive-In Pancake Breakfast. <https://www.facebook.com/events/649124232846389?ref=newsfeed>
- 11* **GRAND RAPIDS AIRPORT (KGPZ), MINN.** - EAA Chapter 412 Spring Fly-in & Breakfast 8am-Noon. The cost of the breakfast is a free-will offering with proceeds going toward the chapter's scholarship program. Contact: Larry Daigle, [218-244-3056](tel:218-244-3056).
- 12 **WILD ROSE (W23), Wis.** - Breakfast 7-11:30 am.
- 12 **MONTEVIDEO (MVE), MINN.** - EAA Chapter 688 Fly-In Breakfast at the Montevideo Airport. Breakfast served 8am-1pm, free

breakfast for PICs. Free Young Eagle rides for ages 8-17. Ping pong ball drop for ages 0-10.

- 12* **PRINCETON (KPNM), MINN.** - Princeton Lions Fly-In Breakfast 7:30am-12:30pm. Breakfast Includes pancakes, hash browns, scrambled eggs, kielbasa, coffee, water, juice. Contact: Charlie Ossell, [612-202-8677](tel:612-202-8677).
- 12* **BUFFALO (KCFE), MINN.** - EAA Chapter 878 Pancake Breakfast 7:30am-12:30pm at West Metro Hangar. Contact: Greg Thomas [763-682-1591](tel:763-682-1591).
- 12* **RUSH CITY (KROS), MINN.** - Lions Pancake Breakfast- 8am-2pm flag presentation, warbirds on display along with a B25 Bomber, A-1 Sky Raider, vendors, afternoon food, pop and water sales, raffle for a B25 Bomber ride. Contact: Susan Hochstatter, [320-358-4743](tel:320-358-4743), shochstatter@ci.rush-city.mn.us.
- 18 **FRIENDSHIP (63C), Wis.** - EAA Young Eagles Rally. Free Airplane Rides for youth ages 8-17. <https://youngeaglesday.org/2878>
- 18* **GREENWOOD (10C), ILL.** - Barnstormer's Day at Galt Airport 8am-2pm. Pancake breakfast, vintage cars, Big Band, and kids' games. Contact Person: Stephanie McClellan stephanie@flywithJB.com [815-648-2433](tel:815-648-2433)
- 18* **MOOSE LAKE (KMZH), MINN.** - Airport Annual Fly In Pancake Breakfast 7:30-11am. PIC Eat free! Contact: Larry Peterson at [218-485-4441](tel:218-485-4441).
- 18* **EAGLE RIVER, Wis. (KEGV)** Fly-In Pancake Breakfast 8-11am. All you can eat pancakes, sausage, milk, juice, coffee. \$7 for Adults, \$3 for Children under 10. Hosted by Troop 601 Boys Scouts of America and Eagle River Union Airport. Flour Drop Contest at 9am. Spot Landing Contest at Noon. Hot Dogs and Hamburgers on the grill 11am-2pm hosted by Eagle River Composite Squadron, Civil Air Patrol. Young Eagle Flights – Free Airplane Rides for youths 12-18. For more information call the Eagle River Union Airport [715-479-7442](tel:715-479-7442).
- 18* **GRANITE FALLS (KGDB), MINN.** - "Pride of The Pacific Airshow" at the Lenzen-Roe-Fagen Memorial Field Airport. www.warbirds-eaa.org/2022-ray-fagen-memorial-airshow/
- 19 **CANTON (1D2), Mich.** - EAA 113 Aviation Center Father's Day Pancake Breakfast 7-11am at Mettetal Airport, 8512 N. Lilley Road. president@eaa113.org
- 19* **LAKE ELMO (21D), MINN.** - Lake Elmo Airport Father's Day Pancake Breakfast.
- 19* **CRYSTAL (KMIC), MINN.** - Crystal Airport Father's Day Pancake Breakfast.
- 24-25 **WAUSAU (KAUW), Wis.** - Wings Over Wausau Airshow 4-10pm-Friday & 8am-10:pm Saturday. Featuring a professional airshow each night, with fireworks at dusk. Also featuring Chalkfest in Downtown Wausau! The event is free for those flying into the event! [715-297-9531](tel:715-297-9531) execdir@wausauevents.org

JULY 2022

- 7* **WASECA (KACQ), MINN.** - Fly-In/Drive starting at 5:30-7:30pm rain or shine. Bring your own meat/drink/ dish to pass. A grill and paper products will be provided. Contact: David Ziegler [507-838-8915](tel:507-838-8915) or Andrew Fisher [612-743-2253](tel:612-743-2253).
- 10 **MIDDLETON (C29), Wis.** - EAA Chapter 93 Pancake Breakfast,

FAGEN FIGHTERS WWII MUSEUM

PRIDE OF THE PACIFIC

RAY FAGEN MEMORIAL AIRSHOW ± JUNE 18, 2022*

ADMISSION
ADULTS... \$25 ONLINE (cash \$30)
ADULTS... \$30
CURRENT MILITARY... \$15
AGES 10-17... \$15
AGES 9 & UNDER... FREE
All tickets include parking, no parking, add at the gate.

SCHEDULE
GATES OPEN 10:30AM
AIRSHOW 3:00PM
CONCERT 7:00PM
NIGHT AIRSHOW

GET CONNECTED
FOLLOW US ON FACEBOOK
EVENT FOR THE LATEST
AIRSHOW NEWS & UPDATES

AVAILABLE AT GATE
GET LINE UP BACKSEAT
OR SCAN QR CODE FOR
ONLINE PURCHASES

SOLE MONTGOMERY GENTRY

LOCATION: THE NEW GREAT HALL FOR VETERANS AND THEIR FAMILIES. VISITING FOR WWII VETERANS.

RECONSTRUCTED VEHICLES CAMP

TORA TORA TORA

YOUNKIN AIRSHOWS

AEROBATIC PERFORMANCES
SETH KOTHE - 1941-1942 - 1947-1948

WINGS OF THE NORTH MUSEUM

DAKOTA TERRITORY AIR MUSEUM

...AND MANY MORE WARBIRDS

*MAIN DATE FOR AIRSHOW JUNE 19
CONCERT BACKUP DATE JUNE 18

WWW.FAGENFIGHTERSWWII.MUSEUM.ORG

LENZEN-ROE-FAGEN MEMORIAL AIRPORT
2000 NORTH ST. GRANITE FALLS, MN 55401

Middleton Municipal Airport Morey Field, 7:30am-Noon. Contact Al Barger for more info
[608-332-5989](tel:608-332-5989).

- 10* **LAKEVILLE (KLVN), MINN.** - Lions Club 10th Annual Fly-In Breakfast 7:30am-1:00pm at Airlake Airport. Pancakes, Ham Links, Scrambled Eggs, Pastries, Coffee, Milk, Juice. Adults \$11 in advance, \$12 at the door. Children 5-12 \$6 in advance, \$7 at the door, 4 and under free (1 with each paid adult). PIC eats free. Contact Paul Jacobus lakevillelions.eventchair@gmail.com
- 16-17 **DULUTH (DLH), MINN.** - Duluth Air & Aviation Expo featuring the U.S. Air Force Thunderbirds. duluthairshow.com
- 21-24 **BRODHEAD (C37), Wis.** - Hatz Fly-In and Pietenpol Reunion. www.eaa431.org
- 23-24* **EDEN PRAIRIE (KFCM), MINN.** - Air Expo at Flying Cloud Airport. <https://wotn.org/airexpo/>
- 23-24* **MILWAUKEE, Wis.** - Milwaukee Air & Water Show featuring US Navy Blue Angels, F-22 Raptor Demo Team, C-17 Demo Team, A-10 Demo Team. mkeairwatershow.com
- 25-31 **OSHKOSH, Wis.** - AirVenture Oshkosh 2022 featuring the 75th Anniversary of the Air Force. Also the 50th Anniversary of Van's aircraft and the 30th Anniversary of EAA Young Eagles. www.eaa.org/airventure

AUGUST 2022

- 4* **WASECA (KACQ), MINN.** - Fly-In/Drive-In starting at 5:30-7:30pm rain or shine. Bring your own meat/drink/ dish to pass. A grill and paper products will be provided. Contact: David Ziegler [507-838-8915](tel:507-838-8915) or Andrew Fisher [612-743-2253](tel:612-743-2253).
- 7 **LINO LAKES, MINN.** - Minnesota Seaplane Pilots Association Pig Roast at Surfside. mnseaplanes.com
- 7* **LONGVILLE (KXVG), MINN.** - Longville Flyers Annual Pancake Breakfast 8am-Noon. Discounted avgas! Cars from "our" era, static displays (wx permitting). Contact Steve Shallbetter [218-682-2268](tel:218-682-2268).
- 8 **EDEN PRAIRIE (FCM), MINN.** - Private Pilot/Instrument Ground School at Thunderbird Aviation, Inc. Call to register [952-941-1212](tel:952-941-1212). fly@thunderbirdaviation.com
- 8-17 **ONTARIO, CANADA** - A flying fishing adventure to Miminiska Lodge (CPS5)

TRIP #1: (3-Night/2-Day Trip): August 8 - 11, 2022 - **BOOKED!**
TRIP #2: (3-Night/2-Day Trip): August 11 - 14, 2022 - **BOOKED!**
TRIP #3: (5-Night/4-Day Trip): August 8 - 13, 2022 - **BOOKED!**
TRIP #4: (3-Night/2-Day Trip): August 14- 17, 2022 -
Space Limited, But Still Available!

Contact Krista Cheeseman At Wilderness North [1-888-465-3474](tel:1-888-465-3474)

- 13* **NECEDAH (KDAF), Wis.** - EAA Young Eagles Rally & Brennand Airport Fly-In 9am-3pm. www.eaa41.org [612-756-4495](tel:612-756-4495). Free Airplane Rides for youth ages 8-17. youngeaglesday.org?2879
- 20* **SHAWANO (KEZS), Wis.** - Fly-in, Drive-in event 9am-2pm. Rain date 8/21). The event will feature Antiques, Classics, Warbirds, Modern Aircraft, Young Eagles Flights, Introductory Flights, Equipment Displays, and Collector Cars. Public welcomed. Food and beverages available on site. For more information and updates, see the airport website at www.shawanoairport.com.

SEPTEMBER 2022

- 1* **WASECA (KACQ), MINN.** - Fly-In/Drive starting at 5:30-7:30pm rain or shine. Bring your own meat/drink/ dish to pass. A grill and paper products will be provided. Contact: David Ziegler [507-838-8915](tel:507-838-8915) or Andrew Fisher [612-743-2253](tel:612-743-2253).
- 10 **MILWAUKEE (KMWC), Wis.** - Spot Landing Contest 10am Lawrence J. Timmerman Airport. Timmermanairport.com [414-461-3222](tel:414-461-3222)
- 16-18 **BRAINERD, MINN.** - Minnesota Seaplane Pilots Association Safety Seminar at Madden's on Gull Lake. www.mnseaplanes.com
- 23-25* **ANGOLA, IND.** - Indiana Seaplane Pilots Association Splash-In at Pokagon State Park on the banks of Lake James and Potawatomi Inn. For more information contact randy.strebig@strebigconstruction.com. For accommodations contact Potawatomi Inn [877-768-2928](tel:877-768-2928).
- 24* **EDEN PRAIRIE (KFCM), MINN.** - Girls In Aviation Day at Flying Cloud Airport. <https://starsofthenorth.org/girls-in-aviation-day>

OCTOBER 2022

- 2-4 **EAU CLAIRE, Wis.** - 66th Wisconsin Aviation Conference. Chippewa Valley Regional Airport, host airport.

NOVEMBER 2022

- 5 **BRODHEAD (C37), Wis.** - Chili Lunch Fly-In 11am-2pm. www.eaa431.org

To get more dates, locations and times for The Flying Hamburger Socials and other aviation events in the Midwest, go to <http://www.moonlightflight.com/flysocal/index.html>

The 20th Anniversary of the Indiana Seaplane Pilots Association Annual Splash-In

This year will be the 20th anniversary of the Indiana Seaplane Pilots Association Annual Splash-In, and to mark the occasion we are planning a three-day event to be held September 23-25 at the traditional location: Pokagon State Park on Lake James in Angola, in the far northeastern corner of the state. It will start with arrivals on Friday, September 23, and a barbecue that evening at the Potawatomi Inn. Saturday will feature various pilot activities and an evening banquet and reunion of pilots at the inn. Sunday will be our day at the park when, as we do every year, we share seaplanes with the community to foster more knowledge of our activity and thus support from the community.

We would like to hear from pilots who have attended the event in the past, even if you haven't been in a while. The Indiana Seaplane Pilots Association Splash-In was founded as an advocacy event to show the Indiana Department of

Natural Resources, recreational boaters and others that all of the common myths that seaplanes do not make good neighbors on public freshwater lakes are just that—myths. We have convincingly demonstrated this point as well as created one of the most popular events in the Indiana state park system.

Seaplane flying in Indiana is alive and well and growing, and a big reason for that is the fabulous effort that has been made by all the pilots who come to the Indiana splash-in to share their airplanes with the public and educate them about seaplanes and seaplane flying, and thus create invaluable goodwill in the community.

For more information about attending the 20th anniversary Indiana Seaplane Pilots Association Splash-In this September, please contact association President Randy Strebig at randy.strebig@strebigconstruction.com □

CLASSIFIEDS

SINGLE LISTING: \$.75 per word. Minimum Order \$20.00 per issue
EMAIL AD TO: dave@midwestflyer.com and you will be invoiced via PayPal
and you can then pay using your credit card or PayPal account.
OTHERWISE, PLEASE MAIL AD WITH PAYMENT TO:
Midwest Flyer Magazine - 6031 Lawry Court - Oregon WI 53575



FOR SALE: MN Seaplane Base (7MN2) and family camp on a 950" shoreline peninsula, with wet hangar, 5 cabins, avgas tank, and much more: \$1,200,000 vanair@rangenet.com

T-HANGAR RENTAL – THREE MONTHS FREE WITH TWELVE MONTH LEASE (specific hangars) at the Southern Wisconsin Regional Airport, Janesville, WI. Call [608-757-5768](tel:608-757-5768) for details.

HANGAR LAND LEASES AVAILABLE – Crane Field (WI21), located 12 miles east of Eau Claire, Wisconsin (KEAU). Established in 1969. Contact david@ddcrane.com, [715-828-7175](tel:715-828-7175) for complete information.

AIRCRAFT SALES & BROKERING – Sell your airplane quickly and efficiently. 150-plus transactions! Spring City Aviation. Email gavin@springcityaviation.com, or call [414-461-3222](tel:414-461-3222) (Office) or [218-280-2615](tel:218-280-2615) (Cell).

AVIATION INSURANCE RESOURCES – Best Rates, Broadest Coverage, All Markets. Access the entire market with just one phone call: [301-682-6200](tel:301-682-6200). Or online at www.AIR-PROS.com

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](tel:1-800-325-0885).

AIRCRAFT CONSIGNMENTS WANTED – Buying or selling, we'll work for you! WisconsinAviation.com [800-657-0761](tel:800-657-0761)

FLY TO CANADA IN 2022 - Make plans and reservations now to experience flight into the Canadian wilderness in 2022, while enjoying the comforts of home! Miminiska Lodge, located 196 nm north of Thunder Bay, Ontario, features a 2400 ft. grass airstrip within walking distance to your cabin, the lodge and waterfront. Top-notch meals are provided, excellent fishing with guides optional, newer and well-maintained boats and motors, well-maintained facilities and excellent housekeeping, delicious shore lunches, and scenery that cannot be beat. This is the lodge *Midwest Flyer Magazine* has featured for the past 10-plus years! For additional information call [1-888-465-3474](tel:1-888-465-3474) and visit <https://wildernessnorth.com/accommodations/miminiska-lodge/>. Ask about the special package for Midwest flyers, August 14-17, 2022. Includes an extra half day of fishing at ***NO ADDITIONAL CHARGE!***

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

LEINWEBER LAW LLC

Aviation-related legal matters, including business organizations, defense of FAA certificate actions, aircraft purchases and sales, FBO/airport management agreements and disputes, and airport development projects.

Over 40 years of experience in aviation...
Aviation Attorney, CFII, CMT
& Former FBO & Airport Manager
AOPA Legal Services Plan panel attorney.



eleinweber@leinweberlaw.com
leinweberlaw.com 608-604-6515



COOPER ENGINEERING



715-234-7008 www.cooperengineering.net
Quality Airport Planning & Design



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)

608-268-5024 FlightSchool@WisAv.com

AVIONICS



Garmin's G500 TXi Retrofit Upgrade

Exclusive Cirrus SR22 demo equipped with
Garmin's G500 TXi Retrofit Upgrade, including the GFC 500 autopilot system.

608-268-5006 Avionics@WisAv.com

AIRCRAFT SALES



1964 Beech 35-B33 Debonair – N8833M
7630 TT, 802 SMOH, September Annual,
IFD 440, S-TEC 50, HSI, ADS-B, JPI
EDM 900, Autogas STC, BAS shoulder
harnesses, more!..... **\$142,500**



1982 Cessna 414A RAM IV – N37FS
Only 4840 TTSN, 1035/1090 SMOH,
December annual, Garmin 600! S-TEC 55X
with GPSS, Garmin 750/650, 345/330ES,
clean..... **\$499,500**

COMING SOON: Cessna 172

CONSIGNMENTS WANTED

Buying or selling, we'll work for you!

800-657-0761 ACsales@WisAv.com

TOP GUN: MAVERICK

At An IMAX Theatre Near You!



After more than 30 years of service as one of the Navy's top aviators, Pete "Maverick" Mitchell (Tom Cruise) is where he belongs, pushing the envelope as a courageous test pilot and dodging the advancement in rank that would ground him. When he finds himself training a detachment of Top Gun graduates for a specialized mission the likes of which no living pilot has ever seen, Maverick encounters Lt. Bradley Bradshaw (Miles Teller), call sign: "Rooster," the son of Maverick's late friend and Radar Intercept Officer Lt. Nick Bradshaw, aka "Goose."

Facing an uncertain future and confronting the ghosts of his past, Maverick is drawn into a confrontation with his own deepest fears, culminating in a mission that demands the ultimate sacrifice from those who will be chosen to fly it.

TOP GUN: MAVERICK was shot with IMAX-certified digital cameras and features nearly an hour of IMAX exclusive Expanded Aspect Ratio (EAR). Shot with 6 IMAX-certified cameras strapped into real F-18 cockpits, audiences will soar through the sky like never before, beginning May 27, 2022.

Exclusively in IMAX theatres, select sequences of TOP GUN: MAVERICK will fill the entire screen as intended by director Joseph Kosinski, allowing moviegoers to experience more of the images with unprecedented crispness and clarity. Combined with next generation IMAX precision sound, audiences are in for a truly spectacular and immersive experience. □



A Flying Fishing Adventure To Miminiska Lodge Ontario, Canada

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

SPECIAL GROUP RATE TRIPS

TRIP #1: (3-Night/2-Day Trip): August 8 - 11, 2022 - BOOKED!

TRIP #2: (3-Night/2-Day Trip): August 11 - 14, 2022 - BOOKED!

TRIP #3: (5-Night/4-Day Trip): August 8 - 13, 2022 - BOOKED!

TRIP #4: (3-Night/2-Day Trip): August 14- 17, 2022 -

Space Limited, But Still Available!

*Other dates may be
available for individuals.*

FOR SPECIAL
GROUP RATES
& DETAILS,

Contact Laurian Miles
At Wilderness North
toll free: **1-888-465-3474**

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



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

To Read More Aviation Articles Go To
midwestflyer.com

Archives

PDF Archives For The Whole Issue

or for individual articles go to

Columns - Headlines - Sections

Check Out Our Webstore: www.leadingedgeairfoils.com

Fly High and Carefree

LEADING EDGE AIR FOILS

ROTAX
INDEPENDENT
SERVICE CENTRE

- Large Inventory of Engines
- A&P Technicians on Staff
- Maintenance ■ Overhaul
- Parts and Repairs

ROTAX

INDEPENDENT SERVICE CENTRE
AIRCRAFT ENGINES



onlinecatalog.leadingedgeairfoils.com

1216 North Road
Lyons, WI 53148

1.800.532.3462



CRYSTAL AIRPORT

5800 Crystal Airport Road, Crystal, MN 55429
763.533.4162

FLYING CLOUD AIRPORT

14091 Pioneer Trail, Eden Prairie, MN 55347
952.941.1212

Does the **high cost** of maintaining your aircraft **limit your flying**?
If the answer is "yes," Thunderbird Aviation invites you to join our

Good as Gold Membership!

**Earn 30 minutes of maintenance labor for every
50 gallons of 100LL fuel you purchase!**

There are no fees to enroll!

We can meet all of your aircraft needs.

- Annuals
- 100 and 50 Hours
- Oil Change
- Sheet Metal Repair
- Interior Work
- and Much More!



Email us at

fly@thunderbirdaviation.com

**and you'll be earning FREE
maintenance every time you fly!**

