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DECEMBER 2011//JANUARY 2012

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ON THE COVER: Air show performer, Matt Younkin, is at the top of his game, performing the only Twin Beech 18 routine in North America. Read what sets his act apart from all the others, beginning on page 22. *MGN Photo by Mike Nightengale.*

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EDITOR/PUBLISHER
Dave Weiman

PRODUCTION DIRECTOR
Peggy Weiman

PRODUCTION ASSISTANTS
Jenifer Weiman & Stacy Wilk

PHOTO JOURNALISTS
Don Winkler & Geoff Sobering

CONTRIBUTING EDITORS & PHOTOGRAPHERS

Pete Aarsvold
Randy Arneson
Alan Barbor
Dr. John Beasley
Jim Bildilli
Bill Blake
John Chmiel
Robbie Culver
Craig Fuller
Harold Green
Jim Hanson
Rod Hightower
Dr. Jeffrey Johnson
Michael Kaufman
Jim Koepnick
Ed Leineweber
David Mann
Dr. Patrick Mattson
Dan McDowell
Richard Morey
Mike Nightengale
Greg Reigel
Christopher Roy
Pete Schoeninger
Geoff Sobering
Jeffery Taylor
Nicole Wiessinger
Karen Workman

ADVERTISING
PHONE: (608) 835-7063
FAX: (608) 835-7063
E-MAIL: dave@midwestflyer.com

WEBSITE: www.midwestflyer.com

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DEADLINE	ISSUE
November 1	December - January
January 1	February - March
March 1	April - May
May 1	June - July
July 1	August - September
September 1	October - November

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Access To Electronic Charts May Not Be Free For Long

by Dave Weiman

You knew it was too good to be true. Economical visual and instrument charts through a vendor like "Foreflight" for as little as $75.00 per year. The FAA recently decided they would start charging for digital chart products and only distribute them to individuals and companies that have an agreement with the agency's AeroNav Products branch beginning April 5, 2012. Aviation organizations are concerned, and are working with data providers to assess the potential impact this will have on general aviation. A meeting is scheduled for December 13, 2011, to discuss the new policy.

What brought all of this about is Congress' decision to allow the FAA authority to charge for its products in order to recoup investment costs associated with producing and distributing the materials. The agency has long charged for its paper products. When digital aviation products were introduced, the agency gave them away for free! However, with the explosive growth of the use of the products, and obviously seeing private firms making money on them, the agency plans to apply its model for charging for paper products to its digital charts, but only to a point, we hope. Congress prohibits the FAA from making a profit, but with the agency's enormous overhead, we question if the FAA can even break even and remain competitive with private chart companies in generating the data base.

And charge us for what? All of the administrative time it takes to gather the information, or the administrative costs in disseminating the information? We believe that the former would be cost-prohibitive and the FAA could not compete with private chart companies. The latter would be understandable, but we should have access to FAA's records for oversight purposes.

Also, we cannot allow the aviation community to be singled out to pay for electronic data, when other transportation entities, such as maritime and trucking, are not paying anything at this time.

If the FAA charges too much, pilots will be faced with sticking with the government charts they have now grown accustomed to, or going with private vendors, who for years, provided paper charts superior to government charts in our opinion. The FAA deserves credit for making significant improvements to their charts in recent years, so it will be a tough call for some.

Foreflight and other vendors deserve the credit for making charts available online at affordable rates. Without question, this has affected safety because pilots are more apt to keep their charts current. Apple deserves the credit for developing the iPad, which has revolutionized our industry in regards to access to aeronautical charts and other resources.

How do you feel about this issue? Are you for or against the FAA charging for the use of its electronic charts, and if so, why or why not?

Email your thoughts to info@midwestflyer.com for possible publication.

Thank you! ❑

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Minnesota Aviation Day At The Capitol

February 7, 2012

St. Paul, Minnesota

You Won't Want To Miss This Special Event!

On Tuesday, February 7, 2012, the entire aviation community will come together at the Minnesota State Capitol to visit with their State Senators and Representatives to tell them how important aviation and their local airports is to them and to their local communities.

Anyone actively involved in aviation in Minnesota, and who believes in the importance of their local airport, is encouraged to participate:

Pilots - Fixed Base Operators - Airport Managers - Airport Commissioners - Mayors - City Council Members
Business Aircraft Owners & Operators - Corporate Flight Department - Aircraft Technicians
Aviation Support Service Professionals

The event will kickoff with a welcome breakfast at 9:00 A.M. on the 1st floor of the Capitol.

At the welcome breakfast, each attendee will be handed a packet of materials, which will contain handouts to be left with legislators and suggested talking points to be covered during your visit.

Attendees will be asked to visit their State Senator and Representative(s).

At 12:00 noon attendees will attend a box lunch meeting in the Capitol. During lunch, you will have an opportunity to share your views of the day, the response from your state legislators, and complete an opinion survey regarding Aviation Day At The Capitol.

Hosting *"Minnesota Aviation Day At The Capital"* is the Minnesota Aviation Trades Association (MATA), Minnesota Council Of Airports (MCOA), and the Minnesota Business Aviation Association (MBAA).

Register To Participate by January 24.
Contact Gordon Hoff, Executive Director, MBAA at **gordon.hoff@comcast.net** or call **651-398-4649**.

In addition to attending yourself, you are encouraged to organize a Plane Pool or Car Pool of equally concerned persons.

Transportation from South St. Paul Municipal Airport/Fleming Field (SGS) will be provided to all fly-in attendees who RSVP with their ETA to Glenn Burke, Airport Manager, at 651-554-3350.

See You February 7.

Dave:

Thanks for the great article on Jeff Baum (Oct/Nov 2011). I learned several things about Jeff I did not know. I've known Jeff ever since he started in the FBO business. While at the Wisconsin Bureau of Aeronautics, Jeff was always a person I could call on to give me honest and knowledgeable counsel. Throughout his career, he's been a leader, not only in Wisconsin, but nationwide. I especially enjoyed working with Jeff to establish the Wisconsin Business Aviation Association.

Bob Kunkel
Former Director (Retired)
Wisconsin Bureau of Aeronautics
Madison, Wisconsin

Dear Dave:

In my work on a documentary film I'm making about LSA flying, I'm spending a good deal of time around southern Wisconsin guys who own their LSAs and who spent between $7,000 and $20,000 to acquire them used, and in great condition. I therefore wonder why you wrote about the enormous financial difficulty facing aviation newcomers, when LSAs – at least in the used market – seem eminently affordable to anyone serious about joining the brotherhood.

Bob Leff
Video Art Productions
Cottage Grove, Wisconsin

Bob:

Thank you for the feedback, and for your work in producing a video on Light Sport Aircraft (LSAs).

Unfortunately, we have not been able to locate any used LSAs in great condition selling between $7,000 and $20,000. You must be thinking of used ultralights.

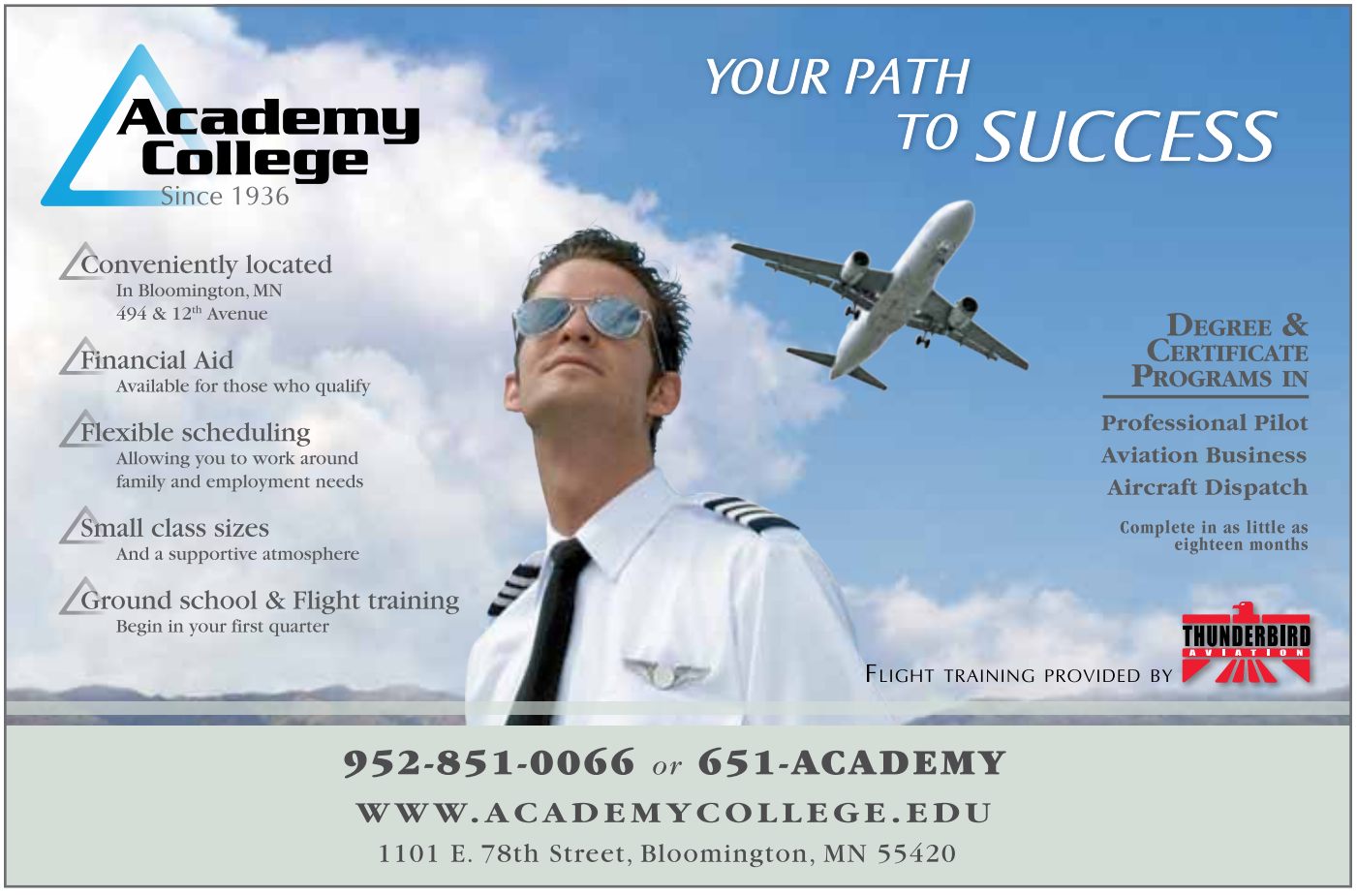
The point I was trying to get across is that new or late model LSAs may not be the best entry-level plane for the first-time aircraft owner. The second point I was making is that the LSA rule deliberately leaves out one of the most popular and safe single-engine aircraft in the world – the Cessna 150 and 152 – which could have been a big boom for the industry. If the industry does not make owning that first airplane affordable, we may never recruit some people to take flying lessons, and obviously, that person will never be a prospect to upgrade to a newer or larger aircraft, or better avionics.

New LSAs are great for pilots who can afford them, and are definitely a possibility for someone looking to upgrade to a newer plane. But they may not be the best entry-level aircraft.

DW

Dear Dave:

You have to wonder what he (the filmmaker) is buying for "$7,000 to $20,000 used, but in great condition?" My single-seat Kolb Firestar – a



Experiencing the Fun of Flying

I have been flying general aviation aircraft for more than 40 years. I suppose it goes without saying that I got started because I loved aviation. But I also saw the practical uses of GA for transportation.

Throughout my career, I've had plenty of reasons to travel for work. I haven't always had the option of flying for myself, but whenever I have had the opportunity, I've seized it.

So from the earliest days of my flying career, the majority of my flight hours have been spent trying to get from point A to point B. Over the years I've owned or flown a variety of Cessnas, Bonanzas, and other aircraft—mostly for business transportation.

When you need to move from place to place, there's no more enjoyable way to do it than GA. But what about flying just for fun? I've sometimes had trouble squeezing in a $100 hamburger or personal travel between the demands of business trips.

Well, for the first time in my four-plus decades of flying, I am making flying for fun a priority. Earlier this year I purchased a good-as-new 1998 Aviat Husky. Learning to fly a tailwheel has been an enjoyable challenge, and the Husky is the perfect vehicle for visiting all kinds of new airports and back-country airstrips in remote and beautiful locations. And that's just what I've been doing.

I recently tagged along on a magazine photo shoot, taking my Husky to New England while AOPA Pilot magazine's Dave Hirschman flew the Tougher Than a Tornado Sweepstakes Husky. The weather was perfect, the leaves were colorful, and the flying was some of the most relaxing and enjoyable I've done in years.

If the weather in your part of the country permits, I hope you'll take some time out of this busy holiday season to go fly just for fun. You can bet I will.

Craig L. Fuller
AOPA President and CEO

AOPA

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former ultralight turned LSA under the "grandfather" clause – costs at the upper end of his range. It's powered by a 503 Rotax 2-cycle engine.

I also own a Kitfox IV homebuilt that can be flown as an LSA. It is powered by a 582 Rotax 2-cycle engine, and can carry a passenger. The kit is $15,000, the engine is $7,000, the prop is $1,500. There is no radio, and you still have to build it!

You still have an LSA-powered by a 2-stroke engine, something no commercial operator will rent. These very same aircraft can accommodate a 912 Rotax, but the engine alone is over $20,000. So much for the "affordable LSA."

It is true that you can buy former ultralights for under $20,000, but the discussion is about safe, supportable airplanes. None of these former ultralights can be rented out as trainers.

I've deliberately stayed away from the discussion about the suitability of factory-built LSAs as training aircraft as they are sometimes advertised in the magazines. But the record of success is not good. The price (and the required rate for rental) is high (something I addressed in the first series of articles I have written for MFM). They also haven't stood up well to the rigors of student training, as Aviation Consumer reports.

If the filmmaker wants a safe aircraft for under $20,000, they are available. The trusty old Cessna 150, a Tomahawk, a Piper Colt. Other than that, he might consider a glider. There are a number of those available for under $20,000.

The marketplace – the "invisible hand" of Adam Smith – has decreed what is a value and what is not. Wishing it were different doesn't make it true. Witness the sharply increased value of Champs, Cubs, and T-crafts when LSAs were announced; people have chosen those, instead of Euro-designed LSAs, and the price has gone up in return. If the proposal to drop the third-class medical goes through, the same thing will happen with our tried and true simple four-place aircraft…the price will go up. As I mentioned in the earlier series, "who would buy an LSA if you could find a good four-place aircraft instead, for a lot less money?" I would hate to own a factory-built LSA right now for that reason.

The "documentary filmmaker" obviously graduated from the "Michael Moore School of Documentary Filmmaking." Rather than put forth the truth, he starts out with a pre-conceived notion, then tries to make it fit. He does his viewers a disservice. Common sense says, "You can't get anything of real value for little or nothing." Most pilots won't take the aircraft he champions seriously, and the poor safety record

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of these aircraft doesn't do anything good for the industry. There is a reason there are no factory-built LSAs using 2-stroke engines. He should be advised that for the good of our industry, he should be considering "true ultralights" (those still exist), instead of confusing would-be pilots with something less than a safe and serious aircraft.

On the good side, I have had a number of people comment positively about the series, including some fixed base operators. Barry Bibler, representing the South Dakota Pilots Association, asked for reprint permission for their state newsletter and for their convention. I gave him your contact info.

Jim Hanson
Albert Lea, Minnesota

Hi Dave:

I got "Madame Butterfly" (my V-tail Bonanza) back (from the avionics shop), and I am very happy

with the work (slightly used Garmin 530 installed). I just hope everything works, and I will know tomorrow with a flight to Merritt Island, Florida, for our fall fly-in.

Got my *Midwest Flyer Magazine* today. I agree with your article (on LSAs) completely!

Anthony Restaino
Hollywood, Fla.

Dave:

Received your latest issue today. Very, very interesting information contained therein. Getting better and better every month.

A couple of items really caught my eye, and particularly the one noting that Honeywell is now in the aircraft engine manufacturing business. Really intrigued me since Honeywell had absolutely no involvement in this area of aerospace when I was there, although we did have an excellent aerospace operation. The closet thing we had related to engines was our involvement in the production (and not the design) of the Minuteman Missile.

Do you possibly have any other information on this engine? I'd be interested in reading more.

Ray Rubin
Eagle River, Wisconsin

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Shared Expenses & The Private Pilot

by Gregory J. Reigel
Attorney At Law


Greg Reigel

In today's economy, many private pilots look for ways to minimize the cost of their flying. One of the ways to reduce the cost of a particular flight is to share that expense with the passenger(s) on the flight. However, if a private pilot receives compensation for flying persons or property for hire in excess of what is allowed by the Federal Aviation Regulations (FARs), he or she risks an enforcement action that could result in suspension or revocation of the pilot's private pilot certificate. In order to legally share costs, private pilots must be clear on both the privileges and limitations of their airman certificate.

PRIVILEGES & LIMITATIONS

FAR 61.113(a) provides that "no person who holds a private pilot certificate may act as pilot in command of an aircraft that is carrying passengers or property for compensation or hire; nor may that person, for compensation or hire, act as pilot in command of an aircraft." Fortunately, this is not as complete a prohibition as it appears. In addition to other exceptions, Paragraph (c) of the regulation states "[a] private pilot may not pay less than the pro rata share of the operating expenses of a flight with passengers, provided the expenses involve only fuel, oil, airport expenditures, or rental fees."

So, what does this really mean? Well, it means that the fuel and oil consumed on a flight, and ramp or tie-down fees at the destination airport, can be shared on an equal basis by the pilot and his or her passenger(s). Or, if the aircraft is rented from an FBO or other third-party, the hourly rental fee, plus the cost of fuel, if that is not included in the rental fee, can be shared by the pilot and his or her passenger(s). Additionally, customs fees and ATC user fees for a flight would also need to be shared equally as "airport expenditures." However, indirect expenses such as insurance, maintenance, depreciation or other capital costs (e.g. costs of ownership) cannot be shared.

With respect to the method for calculating the amount the pilot and passenger(s) must each pay, according to the FAA it is not necessary that a mathematically exact division of each operating expense is calculated.

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However, if the pilot pays less than an equal share of the total operating costs or flight, the FAA will assume the pilot was not actually sharing expenses.

Keep in mind that the FAA views "compensation" very broadly. If passengers are paying a disproportionate amount of the trip related expenses (e.g. hotel, taxi, meals etc.), which the regulation does not define as "operating costs," and the pilot and passengers are only sharing a nominal amount for the actual flight, the FAA could still view those trip related expenses as disguised operating expenses that would need to be shared to avoid being considered compensation to the pilot.

Not a particularly precise position, I know, but it at least provides some guidance. In general, divide the total allowed costs for the flight by the number of people in the aircraft during the flight and the result will be the amount that each person must pay.

For example, if four (4) people are flying in the aircraft, including the pilot, then the pilot would be responsible for 25% of the cost. If three (3) people are flying, including pilot, then the pilot pays 33.33% of the cost. And if only the pilot and one passenger are on board, then the pilot would pay 50% of the cost.

Finally, keep in mind that in addition to equal sharing of the cost of the flight, the pilot and passengers must have a common purpose for the flight as well. That is, they must be flying to the same destination for a common reason. A pilot may not carry expense-sharing passengers to a destination at which he or she has no particular business. Also, a pilot may not share the expenses of a private flight with his or her passenger(s) if the pilot's purpose is to merely build flight time or get flight instruction, unless that is the purpose of the passenger(s) as well (which is usually not the case).

Conclusion

Although a private pilot is generally precluded from being paid for flying, a private pilot may still share a particular flight's expenses with his or her passenger(s). However, private pilots should be careful that they are legitimately paying their share of the expense and not trying to stretch the FARs beyond what the FAA allows. At the end of the day, a private pilot needs to be aware of the restrictions and limitations for sharing expenses in order to avoid situations that could compromise his or her private pilot certificate.

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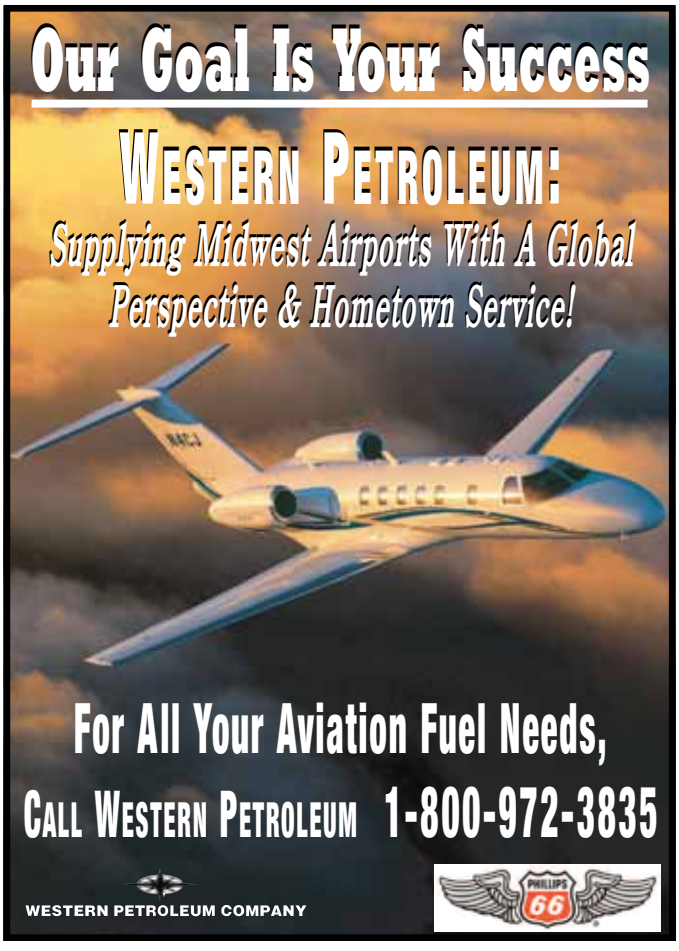
EDITOR'S NOTE: Greg Reigel is an attorney with Reigel Law Firm, Ltd., a law firm located in Hopkins, Minnesota, which represents clients in aviation and business law matters (www.aerolegalservices.com, 952-238-1060, greigel@aerolegalservices.com). ❑



OKCITY'S Emergency & Post-Crash Survival Training For GA Pilots

by Pete Aarsvold

The FAA Civil Aerospace Medical Institute (CAMI) located at Will Rogers World Airport in Oklahoma City, Okla., offers a one-day training course to familiarize U.S. civil aviation pilots and flight crews with the physiological and psychological stress of flight. In addition to the basic academic course contents, the class offers practical hands-on demonstrations of rapid decompression (8,000 – 18,000 feet AGL) and hypoxia (25,000 feet AGL) using a hypobaric (altitude) chamber and a safe, practical demonstration of "pilot's vertigo" using a Spatial Disorientation Demonstrator.

CAMI also offers a one-day post-crash survival course for general aviation pilots. It is designed to be an introduction, which provides basic knowledge and skills for coping with various common survival scenarios. In addition, the course teaches pilots how to easily assemble and use a personal survival kit.

There is no charge for registering and participating in these training classes. Transportation, food, and lodging expenses are the only costs that you are responsible for.

Fellow pilots Steve Pate, Ray Koenig and I embarked on what proved to be an excellent chance to learn about things

FAA Mike Monroney Aeronautical Center, Oklahoma City, Okla.

to make us safer and more prepared pilots.

We arrived in Oklahoma City on a Sunday, two days earlier than needed, to avoid forecast thunderstorms along our route of flight. We were flying a 1978 Cessna 182 Skylane with retractable gear. We filed an IFR flight plan direct and flew at a comfortable altitude of 8,000 feet. Distance direct from Dane County Regional Airport, Madison, Wisconsin (KMSN) to Will Rogers Airport, Oklahoma City, Okla. (KOKC), was just over 600 nm. The non-stop time enroute was 4 hours and 30 minutes and we landed with more than 2 hours of fuel on reserve.

Winds and temperature can be adverse in Oklahoma, especially in the summer. Therefore, hangar storage during one's stay is strongly recommended. At the very least, secure your aircraft using extra strength tie-downs. We opted to hangar at Atlantic Aviation and they took very good care of us.

Arriving early gave us an opportunity to visit the Oklahoma City National Memorial on Monday. The memorial is located at the site where Timothy McVeigh parked a Ryder rental truck filled with explosives in front of the Alfred P. Murrah Federal Building. The resulting explosion killed 168 people and destroyed the entire north face of the building. Visiting the memorial is a moving experience I highly recommend.

Tuesday morning, we arrived at the Mike Monroney Aeronautical Center visitor check-in area located at Will Rogers World Airport. The aeronautical center is huge and employs more than 5,000 government employees involved with training air traffic controllers, transportation security agents, department of homeland security employees, military personnel, and civilian flight personnel and others.

The classroom presentation for Aerospace Physiology Training was very informative, but my favorite part of the day began just after lunch and involved hands-on exposure

to "hypoxia." We entered the hypoxia chamber in groups of four. The room had Plexiglas walls so our classmates could observe what happens when pilots and crewmembers experience hypoxia. We had ready access to oxygen masks and were encouraged to don the masks at any time during our 5-minute exposure to an oxygen-deprived environment simulating an altitude of 25,000 feet AGL. After each minute in the chamber, we were asked to note symptoms of hypoxia.

Possible hypoxia symptoms included tingling, rapid breathing, high pulse rate, fatigue, headache, dizziness, unusual feelings of hot/cold, tunnel vision, loss of color awareness, numbness, nausea, and other symptoms. Some participants donned their oxygen mask early and others later in the 5-minute experience. Most who lasted the entire 5 minutes didn't remember the last 2 minutes in the chamber. Interestingly, the participants who

Contributing writer, Pete Aarsvold (left), recovers from the effects of hypoxia using an oxygen mask after lasting 5 minutes without one at a simulated altitude of 25,000 feet. Recovery after donning the oxygen mask is almost instantaneous.

lasted the longest without oxygen were able to complete simple tasks with a great deal of effort, but did not remember doing the tasks. One of the participants was asked to point his hands in the direction of a dive, yet aimed his hands skyward. When asked to indicate a climb, he directed his hands towards the ground. During an interview conducted after the participant donned his oxygen mask, he didn't even remember being asked to complete this simple task of climbing and diving.

The symptoms of hypoxia stop almost instantly after donning the oxygen mask. Recovery is almost immediate. CAMI recommends the use of supplemental oxygen anytime when flying above 8,000 feet AGL. If flying at night, CAMI recommends the use of supplemental oxygen above 5,000 feet AGL.

After experiencing symptoms of hypoxia, it was time to experience "vertigo" using a Spatial Disorientation Demonstrator. We now know more than ever to not pick up a pencil from the floor of an airplane while in instrument flight conditions. You have to experience this yourself to fully respect the effects of vertigo. The impact of vertigo can be very serious. If you focus on the instrument panel and use appropriate scan technique, the symptoms of vertigo can be significantly reduced.

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Aerospace Physiology & Emergency Preparedness

Aviation physiology courses taught at the Mike Monroney Aeronautical Center and participating military facilities provide essentially the same training. The following topics are covered during the training (listed in order of presentation):

- Physics of the Atmosphere
- Respiration and Circulation
- Decompressions
- Stress
- Hypoxia
- Hyperventilation
- Decompression Sickness
- Pressure Equalization Difficulties
- General Aviation Oxygen Equipment
- Altitude Chamber Oxygen Equipment Familiarization
- Altitude Chamber Flight Profile & Flight
- Spatial Disorientation, including demonstrators, if available:
  - Gyro Spatial Disorientation Demonstrator
  - Virtual Reality Spatial Disorientation Demonstrator

Post Crash Survival Training

Wednesday morning at 8:00 am, we started with a classroom presentation for Basic Survival Training. By lunchtime, we were ready for the practical hands-on portion of that training. We received a practical demonstration for fire starting without using matches. After the demo, we had a chance to try it for ourselves. Using a small amount of very fine steel wool, a cotton ball, and a 9-volt battery, we had all that we needed to get a fire started in less than 1 minute.

Next, we were attired in flight suits and asked to wear the life vests commonly found on commercial airliners. We entered the water survival lab, resembling an indoor swimming pool, and practiced inflating the life vests and swimming while wearing them. We learned that maintaining core body temperature is essential to water survival and practiced multiple techniques to maximize the preservation of core body temperature. A life raft was provided and we independently boarded it. Boarding a life raft is not easy to do at first, but it gets much easier after learning the proper technique.

Ready for the great escape in a simulated aircraft cockpit, which was inverted and submerged in a swimming pool.

We practiced entering a rescue pick-up basket and were hoisted skyward using an overhead crane. Apparently, the FAA helicopter rescue pilots are not allowed to fly indoors.

The next water survival lab experience involved underwater egress from a simulated aircraft cockpit inverted and submerged in the swimming pool. The FAA instructors taught us correct technique for opening the aircraft door, releasing the four-point seat belt, and swimming in the same direction as the bubbles to the surface in order to safely egress the simulated submerged aircraft. It is really an amazing experience! Though we sincerely hope to never be in this situation, we assure you that our chances for survival are much improved having learned the proper technique.

Course Content

Basic survival training consists of information on the following topics including classroom instruction and hands-on practical experience, listed in order of presentation:

- Psychology of Survival
- Overview of Search & Rescue Operations
- Personal Survival Kits
- Fire Starting with Lab
- Hot Land Survival
- Cold Land Survival
- Signaling with Lab (weather permitting)
- Aircraft (Smoke) Evacuation with Lab
- Ditching and Sea Survival
- Underwater Egress
- Water Survival Lab consisting of:
  - Ditching and Egress
  - Floatation and Swimming
  - Raft Boarding and Righting
  - Rescue (pick-up) Devices
  - Shallow Water Egress Trainer (Voluntary)

The course concluded at 4:00 p.m. on Wednesday and we filed an IFR

Almost home.

flight plan for 9,000 feet direct to KMSN. Our enroute time was 4 hours and 20 minutes. The weather was perfect without a cloud in sight during the entire flight. Our arrival at KMSN was just before 10:00 p.m.

It is surprising that CAMI classes for Aerospace Physiology and Post Crash Survival are offered for free. If you can get away for a couple of days, I strongly recommend that you register and participate in this excellent training opportunity. The FAA training staff and facilities are excellent. The techniques we learned have improved our aviation safety perspective and our readiness for the unexpected.

CAMI's Airman Education Program personnel will provide available training dates for classes. Classes are scheduled starting on the first workday of each month for the month 90 days away (for example, scheduling for July classes would begin the first workday of May) and are filled on a first-call, first-filled basis. To obtain available class dates and/or enroll for class seats, call Monday through Friday from 7:30 am to 4:00 pm (CST) at (405) 954-4837. The following information is required to enroll in a class:

- Full Name
- Date of Birth
- Name of Organization (if applicable)
- Mailing Address
- Daytime Telephone Number
- Aircrew Position or Non-Aircrew Occupation

Please do not hesitate to contact me should you have any questions.

EDITOR'S NOTE: Peter Aarsvold is a flight instructor (CFI) at Morey Airplane Company in Middleton, Wisconsin (C29). When not instructing, Aarsvold is First Vice President & Commercial Loan Manager at Bankers' Bank in Madison, Wisconsin. ❑

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Bill Blake

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AIRCRAFT OWNERS AND PILOTS ASSOCIATION

Great Lakes Regional Report

by Bill Blake
AOPA Great Lakes Regional Representative

Aviation Conferences In The Midwest

Recently, the aviation fall conference season ended. For me, that included attending the annual conferences of the National Association of State Aviation Officials (NASAO), Michigan Association of Airport Executives (MAAE), Illinois Public Airports Association (IPAA), and Aviation Association of Indiana (AAI), and of course, there was the AOPA Summit. All of these events took place during the months of September and October. I will report on the highlights of those conferences from AOPA's perspective.

AOPA decided to hold the annual meeting of the regional representatives concurrently with the NASAO conference at Nashville, Tenn., in September. In addition to working on future plans for state and local activity, we were able to participate in the NASAO seminars and social events. As you probably know, the regional representatives work closely with the state aeronautics directors in their respective states on issues of common interest. I have reported on those to you in previous columns. Many of the national issues create similar issues at the state and local level…the economy, aviation funding, aviation taxes, avgas concerns, dwindling pilot population, and concerns over airport operations, to name a few.

I flew my Cessna 172 Skyhawk directly from the NASAO conference to the MAAE conference in Grand Rapids, Mich., since the two conferences overlapped. My attendance at both conferences would not have been possible without the use of a general aviation aircraft.

The Michigan Aeronautics Commission (MAC) held one of its six yearly meetings during this conference. During the conference, recently appointed State Aeronautics Director Mike Trout reported on the realignment of his office and plans for the future.

Customer service is a top priority for Mike and he wants to create strong partnerships with other aviation interests in Michigan. He stated that the state fuel tax generates about 83% of the revenue going into the state airports fund, which provides matching grants to the federal Airport Improvement Program (AIP) and funds his office. Expenses exceeded revenue in 2010, but 2011 is expected to be a break-even year. I believe with the new director and the recent appointment of some new commissioners, MAC will continue to work aggressively for the benefit of Michigan aviation.

During the Illinois Public Airports Association conference, Great Lakes Regional Administrator Barry Cooper explained that although only 4,000 of the 48,000 employees of the FAA were laid off in the recent shutdown, the action brought the federal Airport Improvement Program to a standstill, as all of the employees supporting that program are paid from the program and it had not been renewed. During that shutdown, $500,000 in revenue was lost. The reauthorization has been extended (again) until the end of January 2012. Hopefully, by the time you read this column, the issues regarding FAA funding will be resolved with long-term legislation.

The FAA Airports District Office Manager for Illinois and Indiana, Jim Keefer, stated during the Illinois conference, that the FAA was now gathering data on non-primary airports to develop the criteria to determine the primary purpose of each airport by category, role, and function. He explained it was necessary to develop this information to fairly allocate airport funding in the future. I am concerned this program could reduce the funding available to the smaller general aviation airports that have no other source of funding.

During the second week of October, I had the privilege of speaking at the annual conference of the Aviation Association of Indiana in Plymouth, Ind. A couple of topics I talked about that I think those of you reading this column might find valuable are the AOPA Aircraft Partnership Program and the possible expansion of the medical self-certification and driver's license standard in lieu of a third-class medical for recreational flying. About six months ago, in an effort to help pilots enjoy aircraft ownership and fly more economically, AOPA introduced its "Aircraft Partnership Program." The goal of the program is to match up prospective buyers and sellers to share aircraft ownership.

To participate, one merely registers on the AOPA website. Registration includes completing a credentials data sheet covering your ratings, flying experience, type aircraft you would consider and expected usage, geographical area you would want to base the aircraft, and how much money you could commit to the ownership, among other things. You do not have to identify yourself by name. Your data is posted online based on geographic location and you are directed to the site that lists the credentials of possible aircraft partners in your area. When someone registers that meets your criteria, you will receive an e-mail notice. Of course, the advantages to joint ownership include being able to afford a better aircraft than alone and a reduction in individual fixed costs, such as hangar rent, insurance, and annual inspections. The program has attracted about 14,000 prospective buyers and sellers so far. I was surprised to find there were eight (8) individuals who wanted to base an aircraft at my little one runway airport, ranging

Appreciating What We've Got

by Craig Fuller
President & CEO
Aircraft Owners & Pilots Association


Craig Fuller

It's that time of the year when we take stock of the things we're grateful for, consider the achievements of the past 12 months, and prepare for the year to come. I have much to be thankful for, and I wanted to share some of those thoughts with you.

At this writing, we have no new general aviation "user fees," and that's something to celebrate. There have been numerous attempts to impose such fees, sometimes disguised in other language, but fees nevertheless.

We also have considerable support on Capitol Hill. In fact, the general aviation caucuses in the House and Senate are among the largest in Congress, and the members of both bodies have repeatedly demonstrated that they understand the value of GA and are prepared to defend it. Harrison Ford recently visited the Senate GA Caucus, and the event was a resounding success with every participating senator expressing their support for GA.

Numerous states have tried to impose new taxes on general aviation in the past year. Shrinking budgets and growing deficits send lawmakers on the hunt for new sources of revenue—and GA is often a target. But none of the proposed taxes became law—another cause for celebration.

Meanwhile, we've continued to find new and effective ways to communicate with you—from AOPA Live to digital editions of the magazines and more. And I am grateful to you, our members, for the enthusiasm with which you've responded.

AOPA Live videos have been played more than 2 million times in the past 24 months, more than 300,000 of you receive *ePilot,* and 200,000 subscribe to *AOPA's Aviation eBrief*. Some 16,000 of you now receive the digital editions of *AOPA Pilot* and *AOPA Flight Training*. And we've got some good news for you iPad enthusiasts. We just launched a free app that lets you read your digital edition on your iPad—you can download it from the iPad app store.

I can't possibly enumerate all the things I'm grateful for in this limited space, but I would be remiss if I didn't mention the obvious—the wonderful freedom to fly that all of us enjoy. Nowhere else in the world do pilots have the kind of freedom we do. The contrasts are stunning. In Europe, fees and regulations hamper GA and make it inaccessible to many aviation enthusiasts. In China, general aviation is brand new and officials in that country are only just beginning the process of creating the infrastructure and regulatory environment that will allow it to prosper.

But here we have the tools, infrastructure, technology, and resources to keep general aviation strong. It's not something we can afford to take for granted. ❑

AOPA Summit 2012 - Oct. 11-13 - Palm Springs, Calif.
– There are educational sessions that cater to all levels of pilots and an exhibit hall that has products and services for everyone. –
www.aopa.org

Great Lakes Regional Report

in experience from newly certificated private pilots, to an 8,000-hour airline transport pilot, and pilots with budgets ranging from $20,000 to $200,000.

In response to member concerns, AOPA and EAA will, after the first of the year, petition the FAA for an exemption that would allow many pilots flying recreationally to use a driver's license and self-certification standard in lieu of a third-class medical. The tentative criteria to be suggested is allowing a pilot to fly, under this standard, up to a four-place single-engine aircraft with no more than 180 horsepower during day VFR conditions. Although the aircraft may have four seats, only one passenger may be aboard. These criteria would allow pilots to continue flying aircraft they are familiar with, instead of having to switch to a light sport category aircraft. The criteria are still tentative. If you have any comments on the criteria, please contact AOPA before the petition is filed with the FAA.

AOPA will be announcing new initiatives to continue to increase our efforts at the state and local level. In the meantime, I would like to remind you that general aviation needs each of us to be engaged. If your airport does not have an AOPA Airport Support Network (ASN) volunteer, consider applying on the AOPA website. If your airport has a volunteer, contact him/her and offer your help. Be sure you keep informed and let your national, state, and local officials know your views on aviation issues. Attend a general aviation rally if one is held in your area, contribute to the AOPA Political Action Committee (PAC), and *fly, fly, fly* to help keep the general aviation industry strong!

AOPA will continue to work to promote and protect general aviation at the national, state, and local level. For more information on any issue affecting general aviation, please visit our website at: www.aopa.org. ❑

Matt Younkin's Twin Beech Routine... An Air Show Act You Can Hear & See!

by Dave Weiman

Photo by Geoff Sobering

Oftentimes, when a really good air show pilot performs, he/she tries to get as low as possible, thinking that is what the crowd wants. But what the crowd really wants is to see the show plane, and size does matter. With Matt Younkin's Twin Beech act, the crowd not only sees the plane, but hears it too, because the aircraft is powered by two huge 450 hp Pratt & Whitney R985 engines.

Matt Younkin is a third generation pilot. He is the grandson of aeronautical engineer, Jim Younkin, and the son of legendary air show performer, Bobby Younkin.

Jim Younkin designed the Century and Trutrak autopilots. He is also known for his antique aircraft restorations, as well as for building replicas of air race aircraft of the 1930s, such as the Howard DGA-6 racer, "Mr. Mulligan," and the Travel Air "Mystery Ship."

Matt's father, Bobby Younkin, was known throughout North America for his amazing aerobatic performances in the AT-6 warbird, Twin Beech, Learjet 23, Super Decathlon, and the one-of-a-kind "Samson" biplane. His performances, talent and versatility earned him the prestigious "Bill Barber Award For Showmanship" in 2004. Bobby was killed in a midair collision in 2005 while performing in "Samson."

(L/R) Matt Younkin with artist R.T. Foster, who painted the nose art on the Twin Beech that Younkin performs aerobatics in at air shows throughout North America.

Matt learned to fly at age 14 in a Piper J-3 Cub. On his 16th birthday, Matt soloed his grandfather's 1928 Travel Air 4000 biplane.

Matt, now 30, is proficient in over 50 types of airplanes, ranging from the Piper Cub to the North American B-25. He is also a fully rated flight instructor and has 3000 hours of flight time. He and his wife, Michelle, and daughter, Kimberly, reside in Siloam Springs, Arkansas.

Matt is also an accomplished radio-controlled model airplane operator. Like his father before him, Matt learned most of his aerobatic skills flying models, and later refined them in the Super Decathlon.

Bobby Younkin gave Matt two hours of aerobatic instruction, which focused mainly on slow rolls. Bobby said, "Almost every aerobatic maneuver is based on a slow roll. If you can master the slow roll, you can master anything."

When Matt took the Decathlon out to perfect his slow rolls, he soon discovered that he could perform every maneuver that Bobby performed in the plane, plus a few new ones of his own.

Matt's latest and greatest achievement is perfecting the world's only night aerobatic display in the Twin Beech. Equipped with 50 external lights, the top of the airplane appears to glow in the dark, while the bottom of the plane twinkles violently. Combined with smoke, noise, choreography, and an incredible musical score, the "Twin Beech Night Spectacular" is one of the most sought after acts in the air show arena.

Matt is also performing the daytime aerobatic routine in the Twin Beech that his father Bobby perfected. Many people have described this routine as the most graceful performance of any air show act.

Like his father before him, Matt Younkin is invited to perform each year at both EAA AirVenture in Oshkosh, Wisconsin, and Sun 'n Fun in Lakeland, Florida.

The Twin Beech

Beechcraft Corporation in Wichita, Kansas, built Matt Younkin's Twin Beech in 1943. Designated an AT-7C, the airplane was bought new by the United States Army Air Corps and spent the duration of the war as a navigation trainer based at Ellington Army Air Field in Houston, Texas. In 1945, the Army transferred ownership of the aircraft to the Civil Aeronautics Administration (CAA), predecessor to the Federal Aviation Administration (FAA). Redesignated a C-18S, the aircraft served with the CAA until 1949. The airplane was then reregistered again and served as a VIP transport for the United States Department of Commerce until 1959. The aircraft was reregistered once more, and went through several owners including a skydiving drop zone and a university before being purchased by Bobby Younkin Airshows, Inc. in 2000. After a complete restoration, N9109R was put into air show service as a replacement for Bobby Younkin's original aerobatic Beech 18, which he started performing with in 1989. After Younkin's untimely death in 2005, the Beech spent two years in retirement as a static display in Tullahoma, Tenn. Matt Younkin debuted his rendition of his father's air show routine in the Twin Beech at Sun 'n Fun 2007, and debuted his own original night show at Sun 'n Fun 2008, and has been performing in the aircraft ever since.

Aircraft Specifications

Wingspan: 49 feet 8 inches
Length: 35 feet 3 inches
Height: 9 feet 4 inches
Powerplant: (2) Pratt & Whitney R985 engines (450 hp each).
Propeller: (2) Hamilton Standard 22D30 (two-blade).
Fuel Capacity: 198 U.S. Gallons
Cruise Speed: 200 mph
Top Speed: 250 mph
Stall Speed: 80 mph
Empty Weight: 5400 lbs
Gross Weight: 8600 lbs
Capacity: 6 Persons

In addition to performing in air shows, Matt Younkin is a flight instructor and works for Summit Aviation in Bentonville, Arkansas. Matt specializes in tail wheel training, upset recovery/spin training, and basic aerobatics. Persons interested in booking Matt Younkin for an air show, or for flight training, can email him at younkinair@aol.com or call 479-283-1288. ❑

10 Planes To Miminiska

by Dave Weiman

Seven years ago when my neighbor and I started flying to Canada, we were hopeful that such a trip would interest others. To be successful, we felt that the destination had to be to a remote location, but not so remote or far from the United States and Canada border to be difficult and costly. The destination would also need to be accessible by air, preferably with an airport on premises. The fishing had to be good. And last, the price had to be reasonable. After a little trial and error, we found the perfect destination in 2007 and have been returning there ever since.

Looking south with the lodge located north of the sand-point peninsula.

Miminiska Lodge, located 196 nm north of Thunder Bay, Ontario, on the Albany River Watershed, is the place. Miminiska has a 50 X 2400 ft. turf runway (Rwy 9/27), and is only accessible by air. The airport identifier is CPS5. (Refer to the "Thunder Bay" VFR Navigation Chart and Canada Flight Supplement.) Miminiska is one of five fishing lodges owned by Wilderness North of Thunder Bay, Ontario, but the only lodge with its own private airstrip. Alan and Krista Cheeseman are the proprietors. The company owns a fleet of aircraft,


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The airstrip at Miminiska Lodge as seen flying from east to west along Runway 27.

including several floatplanes.

Each year the trip has grown, and pilots seem to go for three reasons: 1) the adventure of the flight, 2) great fishing, and 3) pilot camaraderie.

Trip planning can start a year or a month in advance; the earlier a pilot begins, the more prepared and knowledgeable one will be, and the trip will be more enjoyable.

The single most important reference guide for flying in Canada I feel is the "Canada Flight Supplement." This 3-inch thick publication is filled with information a pilot needs to know about flying in Canada; tips on wilderness survival; and detailed information on every airport in the country with diagrams, communication frequencies, and hours, days and months of operation. The annual supplement is available at "Sporty's."

While Canada has not yet required foreign aircraft to have a 406 Mhz GPS Emergency Location Beacon (ELT) installed, the 406 ELT is highly recommended because 121.5 ELTs are no longer monitored by satellites. Aircraft registered in Canada are required to have 406 ELTs.

If you are interested in installing a 406 ELT, consider the Kannad Integra 406 GPS ELT, which has a built-in GPS and an internal antenna, and does not require an external power source (www.kannad.com).

The 406 Mhz Personal Location Beacon (PLB) is a good backup and costs considerably less than a 406 ELT. However, PLBs require the pilot to manually activate them, compared with the 406 ELT, which will activate upon impact. Personal Floatation Devices (PFDs) or life vests are likewise encouraged.

When you file a flight plan with Winnipeg Flight Service, they will ask what emergency and survival equipment you have onboard, so having some equipment will save face and could save your life!

The "Thunder Bay" VFR navigation chart covers the entire route of flight between Thunder Bay and Miminiska, but it is a good idea to also have some adjoining charts in the event the pilot must divert because of weather.

Enrolling In eAPIS

Since the events of 9-11, security along the border has increased, and therefore as pilots, we are responsible to help ensure that security.

In addition to filing a flight plan before crossing the border, pilots are required to enroll in the U.S. Customs & Border Protection (CBP) electronic Advance Passenger Information System (eAPIS) online at https://eapis.cbp.dhs.gov/, and complete a "Flight Manifest" for each flight. The Flight Manifest is an elaborate flight plan that not only includes the pilot's name, aircraft registration number, type, color, and number of persons onboard, but also the pilot's certificate number, date of birth, and passport number, and that of each crew member and passenger. U.S. Customs also wants to know where at the border aircraft will

be crossing, so a bearing and distance from the closest VOR or airport, or the latitude and longitude, will suffice.

Once you are enrolled in the eAPIS program, pilots must email their notice of arrival and/or departure to Customs & Border Protection at least 60 minutes prior to departure (3 hours in advance is recommended), and no sooner than 30 days in advance, or through an authorized third-party vendor.

Once registered, the system allows pilots to enter their outbound (to Canada) and inbound (to United States) flight and passenger information before they depart on a trip. You can also save your Flight Manifest for future flights, so all you have to do is update it with dates, ETAs, and any new passenger and passport information.

Changing airports and estimated times of arrival do not require a new Flight Manifest, providing the flight is on the same date. Pilots are required to file a new Flight Manifest if there is a change in dates, crew or passengers.

The Aircraft Owners & Pilots Association (AOPA) has an eAPIS Online Course, which is available to all pilots, not just AOPA members: http://flash.aopa.org/asf/eAPIS/.

The Experimental Aircraft Association has developed a "kneeboard fact sheet" that can be downloaded for preflight planning at http://www.eaa.org/news/2010/2010-05-21 cbp.asp.

In addition to filing the Flight Manifest, pilots are required to contact the U.S. or Canada Customs Office at their airport of entry by telephone, and either confirm or change their ETA prior to departing either the United States or Canada.

Prior to departing the United States, we called Canada Customs and confirmed our ETA to Thunder Bay. (Note: Canada Customs requires that pilots contact them up to 48 hours in advance, and at least 2 hours prior to their ETA): 888-CAN-PASS (888-226-7277) (www.canada.gc.ca). We try to provide an accurate ETA and are allowed plus or minus 15 minutes.

Pilot, Plane & Passenger Documentation

I carry the following documents onboard my aircraft, or on my person:

- U.S. Passport
- Pilot Certificate, which states:
  English Proficient.
- FAA Medical Certificate
- U.S. Customs Decal.
- Copies of the U.S. Customs
  "Traveler Manifests."
- Radio Station License
  (required in Canada).
- Radio-Telephone Operator's
  Permit (required in Canada).
- Aircraft Registration Certificate
- Aircraft Airworthiness Certificate

Pat O'Malley

All 10 planes tied down at Miminiska Lodge.

- Aircraft Operating Limitations
- Weight & Balance Information
- Proof of Liability Insurance
  (required in Canada)
- Copy of my most recent Biennial
  Flight Review logbook entry.
- Copy of the current Annual
  Aircraft & Powerplant
  inspection logbook entries.

Phil Peterson

John Doerfer of Verona, Wisconsin, with one of many trophy Northern Pikes that were caught and released.

U.S. Customs Aircraft Decals can be ordered online at www.cbp.gov, or the form can be downloaded and faxed or mailed, along with a check or credit card number in the amount of $27.50 to:

U.S. Customs & Border Protection
Attn: DTOPS Program Administrator
6650 Telecom Drive, Suite 100
Indianapolis IN 46278

For assistance call (317) 298-1245, Fax: 317-290-3219, or email: decals@dhs.gov.

U.S. Customs Aircraft Decals can be renewed online through the Decal and Transponder Online Procurement System (DTOPS) at https://dtops.cbp.dhs.gov.

Crossing The United States/Canada Border

Most pilots that go on this trip stop in Ely, Minnesota enroute to Thunder Bay to get gas, update or confirm their ETA into Thunder Bay with Canada Customs, and obtain a transponder squawk code from either Princeton Flight Service or Minneapolis Center. But pilots also have the option of flying non-stop to Thunder Bay, if they can provide an accurate ETA to Canada Customs (plus or minus 15 minutes). Princeton FSS has advised pilots flying to Canada that they 1) need to be talking to or on frequency with either Center or FSS), 2) have a flight plan, and 3) be squawking an assigned transponder code.

Prior to crossing the border from the United States to Canada, we filed a VFR flight plan and obtained a transponder squawk code from Princeton FSS by transmitting on 122.1 and receiving over the Ely VOR on 109.6 on the ground using their Remote Communications Outlet (RCO). We could also contact them on the radio from the air, or call them on the ground at 800-WX-BRIEF or 866-841-6469. Princeton's discrete phone number is 763-389-5880.

From the time Minneapolis Center gave FSS a transponder code to relay to us, we had only 1 hour to cross the border before the transponder code expired.

We could have also gotten a transponder code directly from Minneapolis Center on 120.9, 127.9, or 121.725, providing we were 5,000 feet or higher. Aircraft need to be 10,000 feet or higher to get radar coverage.

Once we obtained our transponder code from Princeton FSS, we stayed on their radio frequency until we were past the border and signed off with them as required, then squawked 1200 VFR as we were on a VFR flight plan, until we contacted Thunder Bay Approach and they gave us a different code. VFR and IFR altitudes are the same in Canada as they are in the U.S. as per the direction of flight, East/West, Odd/Even, plus 500 feet for VFR, but it hasn't always been that way.

Our Arrival At Thunder Bay

We landed at Thunder Bay International Airport (CYQT), and taxied and parked our plane at ESSO (807-577-1178) where "Larry the Ramp Guy" greeted us. Main Teir Shell is located immediately next door and likewise provides excellent service (807-475-5915).

Upon landing, Thunder Bay Tower informed me that they had cancelled our VFR flight plan, which was one less thing I had to do on the ground.

Since a Canada Customs officer did not meet us when we taxied up to the ramp and parked, as pilot-in-command, I was allowed to get out of the aircraft and walk into the ESSO office to call Canada Customs at 888-CAN-PASS (888-226-7277) to inform them that we had arrived. My passenger remained in the aircraft as required while I made the call. The Canada Customs officer I spoke with asked me a few questions to determine what – if any – duty items we might have onboard. For instance, each person is allowed no more than two normal sized bottles of wine (1.5 liters), 24 bottles or cans of beer (8.5 liters), or 40 ounces of spirits (1.14 liters), duty free! Each person is also allowed 200 cigarettes, 50 cigars and 200g of loose tobacco. Following the question and answer period, the customs officer issued us a "clearance number," and I requested his badge

number, so I had a record of who I spoke with. In the United States, neither the pilot nor passengers are allowed to leave the aircraft until a customs officer arrives and gives the okay.

We had reservations at the Valhalla Inn that night, located immediately adjacent to the airport, so we called for the shuttle.

Flight Plan or Flight Notification?

Everyone on the trip met up, either at the airport or at the hotel, and discussed our next day's flight.

In Canada, pilots are required to file a flight plan if 25 miles beyond their departure airport, unless someone at their destination airport is expecting them, and can contact Flight Service to initiate search and rescue if they do not show up within 1 hour of their ETA.

As an alternative to filing a VFR flight plan with Winnipeg Flight Service, pilots in our group had the option of filing a "Flight Notification" with Wilderness North at its Thunder Bay office when flying VFR from Thunder Bay to Miminiska Lodge, and from Miminiska Lodge to Pickle Lake. Ted Collins at Wilderness North was the "Responsible Person," and we let him know when we would be departing and what our ETA to Miminiska Lodge was.

We could contact Ted at the Wilderness North office in Thunder Bay at 800-263-3474 (Wilderness North Flight Watch), 807-983-2047 (Office Hot Line), or 807-630-3470 (Cell). Ted then emailed the lodge to confirm that we had departed by pilot's name and aircraft tail number.

Upon our arrival at Miminiska Lodge, manager Phyllis Nagle emailed Ted and informed him that we had arrived. Had Phyllis not contacted Ted within 1 hour past our ETA, he would have initiated Search & Rescue procedures by first contacting her at the lodge, looking for another airplane in the group, searching airports, asking others to listen for an ELT on 121.5 (transmits on 406 as well), or calling Winnipeg FSS, which would have in turn contacted the Canadian Forces.

We were still required to file a flight plan with Winnipeg Flight Service on flights crossing the United States and Canada border, and we did so before departing Pickle Lake, Ontario to Ely.

Once we filed our flight plan in Canada, Winnipeg Flight Service would assume that we departed as planned, and our flight plan would opened automatically.

A new option available to us this year in Canada was to file our flight plans online, but most pilots found the "Flight Notification" option through Wilderness North more convenient. To register with Nav Canada to file online, go to www.flightplanning.navcanada.ca (800-876-4693).

Following breakfast at 7:00 am at the Valhalla Inn, we boarded the van to the airport and everyone launched by 9:00 am based on aircraft speed with the faster planes in the lead.

Mike Koch

Betty Koch and her husband, Mike, flew to Miminiska Lodge in their Piper Archer from their home in Neosho, Wisconsin. This Northern Pike that Betty caught, made the trip worthwhile. The Walleye action was excellent as well.

Our Stay At Miminiska Lodge

Miminiska's airport identifier is CPS5. The field elevation is 1,000 feet, and the runway 09/27 is turf and 2400 X 50 feet. Runway 09 slopes down, and the threshold is soft (sand patches). The unicom frequency is 122.8 (5 nm

4000 ASL). Refer to the Canada Flight Supplement for detailed information.

Our choice of runways that day was 27, which brought us over the lake. We kept our speed up so once we descended below treetop level and lost the wind, we were able to maintain sufficient altitude and not descend too fast. Even with our increased approach speeds, all but one aircraft was able to make the turnoff mid-field at the aircraft parking area.

The nice thing about returning to the same lodge each year is that we get to know the staff and they get to know us. When we arrived, it was like coming home! Everyone at camp greeted us at the airport upon our arrival and assisted us with our bags.

The accommodations at Miminiska Lodge have not been compromised by its remote location. Guests stay in either one of two chalet buildings with accommodations for 12 people – six in each of the upper and lower levels – with their own private entrances and staircases. A four-suite building away from the main complex accommodates groups of eight. Three four-person cabins offer privacy along the lakeshore.

After lunch, a number of us went fishing, and others hung around their cabins and relaxed, and got their tackle in order for the next day.

Trophy Fishing & Shore Lunch

The lodge provides well-maintained boats with 25 hp outboard motors, and a detailed map of Lake Miminiska, the river, and numerous bays and inlets, noting where each species of fish can be caught, and where rocks can be avoided.

One of the all-time favorite fishing spots is called "Walleye Mine!"

To the north of Walleye Mine is a north/south bay with some of the best trophy Northern Pike fishing found anywhere in North America. Snake Falls and Miminiska Falls are excellent for multi-specie fishing. Guided trips are available to explore the upper reaches of Snake Falls, Eskakwa Falls and Upper Eskakwa Falls for Speckled Trout, Walleye, Northern Pike and Whitefish. Petawanga Lake, further along the Albany River to the east, offers many different venues, and lots of room to explore. The Albany River exits Petawanga at the east end, and this outflow is a good spot for larger Walleyes, and the occasional Speckled Trout. Trophy Northerns are also present there. The mouth of Fire Creek is also excellent fishing.

Fly-outs to other lakes and rivers are available, using either a de Havilland Beaver or turbo Otter, but require a minimum of four people. The Keezhik Lake is a great producer of trophy Pike, with many islands and bays producing steady action. Ozhiski is a huge lake, worth a visit for its large Walleye.

Two people on our trip from Missouri hired a guide and recorded catching 481 fish during their stay, but all of us had great action throughout the week.

Our bait varied, but black Gulp leaches on white or pink 1/8-ounce jigs worked well for me for both Walleyes and Northerns. Each guest is allowed to take home two of each species of fish, up to a certain length, which preserves the fishing quality in the area.

As a group, we opt to have a shore lunch on "Shore Lunch Island" each day, expertly prepared by the staff.

Meals At The Lodge

Breakfast is served on your schedule between 7:00 and 9:00 am, and ordered from a menu. Evening meals at the lodge are no less than gourmet, served with your choice of beverage.

Each evening, the lodge provides a hospitality hour before dinner at its full-service bar.

Each night after dinner, a number of us would gather outside at one particular spot along the walkway to use our iPads with the wireless satellite system at the lodge. This was a first for our group at Miminiska, and it is all due to the popularity of iPads, and in particular the software "Foreflight" for flight planning and aeronautical charts and approach plates.

Just before the trip, Foreflight came out with its geo-referenced IFR enroute charts and procedures for Canada, and it is now available at the Apple Store (www.ForeFlight.com). Pilots on the trip that did not own an iPad will by the time the 2012 trip rolls around.

On the last night of the trip, we were treated to prime rib, then after sunset, we gathered for a bomb fire on the sand point peninsula by the lodge.

It was a good night to view the stars and the International Space Station passing overhead.

Our Flights Home

That evening, we discussed procedures for our flights home.

One pilot flying a Bonanza filed an instrument flight plan with Winnipeg FSS using "Skype" on the Internet. He

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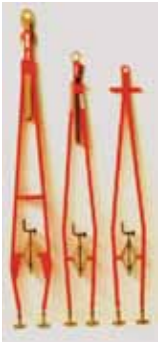

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was able to pick up an instrument clearance once airborne, and flew direct from Miminiska to Green Bay, Wisconsin to clear U.S. Customs.

The pilot reported that at 10,000 feet MSL, he was able to reach Winnipeg FSS on 123.47 to open his flight plan. He then was able to reach Winnipeg Center on 132.12 when he was 120 nm north of Thunder Bay.

Three other pilots in our group flying a Cessna 182RG flew direct to Ely, Minnesota to clear U.S. Customs, then on to their destination in Minneapolis. The pilots of the remaining eight aircraft – two Cessnas and six Pipers – opted to fly 61 nm west of Miminiska Lodge to Pickle Lake to take on more fuel, file their flight plans, and confirm or update their ETAs with U.S. Customs & Border Protection at Ely, Minnesota as required, using the telephone at Northern Frontier Aviation.

Pilots flying into Pickle Lake are required to contact Thunder Bay Radio on 122.2 when 5 nm and 4300 ASL for traffic advisories before landing or taking off.

The air traffic control specialist we spoke with at Thunder Bay Radio is not physically at Pickle Lake and does not have radar. The specialist apparently makes notes of our position, and those of other pilots, and advises everyone accordingly. The specialist can only visualize the traffic, so pilots need to remain vigilant and keep the specialist informed.

Remote Communications Outlets (RCOs) are very popular in Canada, and a cost-effective alternative to having an air traffic control tower at airports. We have been advised by Winnipeg FSS that most RCOs are not dial-ups, but some are. Winnipeg FSS can be reached on 123.475 for Flight Information Service Enroute (FISE).

The pilot of the Cessna 206 in our group blew a tire on landing at Pickle Lake, but fortunately Northern Frontier Aviation had a mechanic on duty that day and the pilot was only delayed 30 minutes.

Speaking of time, Pickle Lake is on Eastern Standard Time (EST) year-around, which is the same as Central Daylight Time (CDT) at Ely. Thunder Bay and Miminiska Lodge are on Eastern Daylight Time (EDT). Additionally, Customs goes by the 2400-hour clock, but do not follow Greenwich or Universal Time (Zulu Time), so we had to be careful how we gave them our ETAs.

At Pickle Lake, we notified U.S. Customs at Ely, Minnesota of our updated ETAs as required at least 1 hour prior to our arrival, by calling 218-365-3262 (office) or 218-349-9283 (cell). We also filed our flight plans with Winnipeg FSS at 866-WX-BRIEF or 866-992-7433 (when calling within Canada). Within Canada or the United States, we could call 866-541-4103.

One by one we departed Pickle Lake, and one by one we kept climbing to get above the cloud buildups – some of us all the way to 12,500 feet.

The Customs Officer at Ely was waiting for us when we arrived.

2011 Canadian fly-out participants.

2012 Canadian Fishing Fly-Out

The dates for the 2012 Canadian Fishing Fly-Out To Miminiska Lodge are August 15-19, 2012. Most participants will arrive in Thunder Bay, Ontario on Tuesday, August 14 and stay overnight at the Days Inn & Suites, so they can get an early start for Miminiska Lodge

on Wednesday, August 15. We will depart Miminiska Lodge on Sunday, August 19, immediately following breakfast.

Pilots interested in the trip should contact Joe Pichey at Wilderness North for rates and reservations: 866-984-1705 or 972-984-1700, or via email: joe@wildernessnorth.com.

Be sure to tell Joe that you are registering for the "Canadian Fishing Fly-Out To Miminiska Lodge," as we have a special group discount rate. Register before December 20, 2011 and receive an additional 10% discount if paid by check, or 7% if paid by credit card. Payments can be mailed to Wilderness North, Inc., PO Box 22012 Strathcona RPO, Thunder Bay, Ontario Canada P7A 8A8.

Reservations at the Days Inn & Suites can be made at 807-622-3297 or 1-800-DAYSINN. Be sure to request the "Miminiska Lodge" block of rooms and receive a discounted rate of $105.00 per night.

Once you have registered for the trip, you must order your fishing license and Canada Outdoor Card in advance using the following website link: www.wildernessnorth.com/trip_planning_licensing.php

Order any special beverages that you do not wish to transport yourself using the following link: www.wildernessnorth.com/beverage_order.php.

For additional information on Miminiska Lodge, refer to the Wilderness North website: www.wildernessnorth.com.

DISCLAIMER: The Canadian Fishing Fly-Out To Miminiska Lodge is a service of Miminiska Lodge and its parent company, Wilderness North. The information provided herein or elsewhere is being provided strictly as an overview of one pilot's experience flying from the United States to Canada and back, and should not be used for navigation or U.S. or Canada Customs purposes. For additional and current information, refer to the Canada Flight Supplement, navigational charts, and information available from the Federal Aviation Administration, Nav Canada, U.S. Customs & Border Protection, Canada Customs, Aircraft Owners & Pilots Association, Experimental Aircraft Association, and other sources. Neither Dave Weiman, *Midwest Flyer Magazine* or its parent company, Flyer Publications, Inc., assume any liability for the reliance upon any information contained in this article or for the trip itself. ❑

NEW PRODUCTS

Swift Enterprises' Fuel Tested In Radial Engine

GRANGEVILLE, IDAHO – More than 100 gallons of Swift Enterprises' 100SF, powered an unmodified Pratt & Whitney R-2800 Double Wasp engine during three days of testing conducted at Anderson Aeromotive Inc. in Grangeville, Idaho. Test results showed that 100SF produced a higher detonation onset threshold than 100LL. The engine was operated at 115-145 octane takeoff power settings, and there were no indications of engine knock (www.swiftenterprises.com). ❑

"Just Plug It In"

EDEN PRAIRIE, MINN. – Tanis Aircraft Products has released a new video called "Tanis –Helicopter Preheat – Just Plug It In," which outlines the safety benefits, functionality and features of helicopter preheat systems. Tanis preheat technology allows an operator to preheat critical driveline components and fluid reservoirs prior to flight.

The two-minute video was first presented at the International Helicopter Safety Symposium (IHSS) in Fort Worth, Texas, on November 9, 2011. The video can be viewed online at http://www.youtube.com/watch?v=vPwI_A7yUE0. For additional information, call 1-800-443-2136 (www.TanisAircraft.com). ❑

Stewart Systems Paint At Wicks

HIGHLAND, ILL. – Wicks Aircraft Supply is now offering the revolutionary new water-based paint developed by Stewart Systems for general aviation and homebuilt aircraft. Stewart products durably adhere to metal, wood, composites, fabric and plastic surfaces, providing a high gloss finish that is flexible, corrosion resistant, and free of any volatile organic compounds.

Stewart has a large group of products that continues to expand and includes Eko Etch, Eko Clean, Eko Prime, Eko Coat, Eko Poly and Eko Shield. The polyurethane is a two-part coating that produces deep color, and the Eko Shield is a clear coat that protects the polyurethane and gives the product its unique wet look.

For more information visit www.WicksAircraft.com or call 800.221.9425; overseas call 1.618.654.7447. ❑

406 ELTs – Taking The 'Search' Out of Search & Rescue

Out with the old 121.5 MHz ELT.

The Kannad INTEGRA 406 AF-Compact ELT is the only ELT in the world, which has an internal GPS and a 406 MHz integrated antenna. The INTEGRA also does not require an external power source.

In with the new 406 MHz GPS ELT.

by Dave Weiman

Believe me when I say, I share your concern with having to buy yet another gizmo that costs a grand or more – either because the manufacturer does not support our existing equipment, or some bureaucrat in Washington writes a new "reg" that mandates an upgrade without first considering the cost to aircraft owners. But occasionally an upgrade makes sense, as in the case of installing a GPS nav/com, or more recently, a 406 MHz GPS Emergency Locator Transmitter (ELT) to replace the 121.5 MHz ELT. Satellites are no longer monitoring the 121.5 MHz ELT as they once were, leaving only handheld tracking devices to pick up their distress signal.

The Federal Aviation Administration has not yet required U.S. registered aircraft to install the 406 ELT, but Canada now requires them in all aircraft registered in that country, and has considered requiring that all foreign aircraft using Canada airspace be equipped as well. The day may come in which all aircraft will be required to have 406 ELTs worldwide. Required or not, if you want to ensure your chances of being found, you should seriously consider investing in a 406 MHz GPS ELT.

The major improvement in ELTs is the use of the COSPAS-SARSAT system for processing aeronautical emergencies.

COSPAS is an acronym for the Russian words "**Co**smicheskaya **S**istema **P**oiska **A**variynyh **S**udov," which translates to "Space System for the Search of Vessels in Distress." **SARSAT** is an acronym for **S**earch **A**nd **R**escue **S**atellite-**A**ided **T**racking.

Cospas-Sarsat is an international satellite-based search and rescue (SAR) distress alert detection and information distribution system, established by Canada, France, the United States, and the former Soviet Union in 1979. It is best known as the system that detects and locates emergency beacons activated by aircraft, ships and backcountry hikers in distress. Over the years many countries have joined the project, either as providers of ground segments or as user states. As of 2011, 26 countries (Algeria, Argentina, Australia, Brazil, Chile, China (P.R. of), Greece, India, Indonesia, Italy, Japan, Korea (Rep. of), New Zealand, Nigeria, Norway, Pakistan, Peru, Saudi Arabia, Singapore, South Africa, Spain, Thailand, Turkey, United Arab Emirate (UAE), United Kingdom (UK), Vietnam, and two organizations – ITDC of Chinese Taipei and Hong Kong, China – are providers of ground segments, while 11 countries are user states (Cyprus, Denmark, Finland, Germany, Madagascar, Netherlands, Poland, Serbia, Sweden, Switzerland, Tunisia). Cospas-Sarsat is based in

Montréal, Québec, Canada, and is headed by Steven Lett of the United States.

Early in its history, the Cospas-Sarsat system was engineered to detect beacon-alerts transmitted at 406 MHz, 121.5 MHz, and 243.0 MHz, the band commonly used by the military. Starting February 1, 2009, the Cospas-Sarsat system has been designed to detect only alerts transmitted at 406 MHz. This allows the system to be optimized for the increasingly sophisticated 406 MHz beacons, and avoids problems (including false alerts) from the less-sophisticated legacy 121.5 MHz and 243.0 MHz beacons. Many ELTs include both a 406 MHz transmitter for satellite detection, and a 121.5 MHz transmitter that can be received by local search crews using direction-finding equipment.

The difference between the 121.5 MHz and 406 MHz transmissions is that the 406 MHz transmission is digital, enabling the identification of the aircraft in distress, which facilitates search and rescue (SAR) operations with information on aircraft type, number of passengers, and type of emergency.

The 406 MHz message is transmitted to the Cospas-Sarsat satellites. This message is downloaded to one of 64 ground stations: 44 Low Earth Orbiting Local User Terminals (LEOLUTs) and 20 Geostationary Local User Terminals (GEOLUTS). Aircraft are located by Doppler effect by the LEO satellites with a precision better than 2 nm (4 km) at any point on earth.

The system consists of a ground segment and a space segment. The space segment of the Cospas-Sarsat system currently consists of SARR instruments aboard five (5) geosynchronous satellites called GEOSARs, and SARR and SARP instruments aboard six (6) low-earth polar orbiting satellites called LEOSARs.[2]

The first system satellite "COSPAS-1" (Kosmos 1383) was launched from Plesetsk Cosmodrome on June 29, 1982. Cospas-Sarsat began tracking the two original types of distress radio beacons in September 1982. Specifically, these were **EPIRBs (Emergency Position-Indicating Radio Beacons),** which signal maritime distress; and **ELTs (Emergency Locator Transmitters),** which signal aircraft distress. More recently, a new type of distress radio beacon – **Personal Locator Beacons (PLBs)** – became available (in 2003 in the United States).

Improvements In ELT Construction

The certification of an ELT includes a range of severe mechanical tests, including resistance to flame; impact and crush tests; resistance to 100 G and 500 G shocks; watertightness; anti-deflagration; and extreme temperatures (-20°C to 55°C for more than 48 hours).

The shock detectors used in old automatic ELTs are the cause of a large number of false alarms. Major work has been done in studying aircraft crashes (study achieved by the Crash Research Institute), and evaluating the acceleration amplitudes involved. As a consequence, G-Switch specifications have been modified to optimize the accuracy of the crash detection.

Which Unit To Buy?

Equipment is being introduced onto the market at a rapid pace and continues to improve. I read up on the different 406 ELTs available, and spoke with a number of factory representatives who exhibited at EAA AirVenture, Sun 'n Fun and the AOPA Summit to learn more. The unit that impressed me the most was the Kannad INTEGRA 406 AF-Compact.

The INTEGRA was first certified in Great Britain, and then in Canada, followed by the United States. It is the only ELT in the world, which offers an internal GPS and a 406 MHz integrated antenna, and it does not require an external power source.

This clever internal antenna offers a unique advantage in that, even if the aircraft suffers considerable damage on impact, the INTEGRA will activate automatically and still have the ability to transmit and send both aircraft identification data and GPS position. Thanks to the self-sufficient embedded GPS receiver, the INTEGRA will continue to transmit its lifesaving message, even if the crew removes it from the aircraft.

The INTEGRA can also be installed where an ELT is exempt from being mandated, and can be used without any external antenna subject to the fuselage construction. This feature offers great savings in procurement and installation costs.

As the smallest and lightest ELT

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on the market, the INTEGRA weighs just 26.6 ounces, and has a standard installation dimension of 5.51" x 3.86" x 3.40".

Kannad, a company of the Orolia Group, specializes in the development of aviation distress beacons, which have saved thousands of lives for over 20 years. The Kannad range of products covers all aircraft. Kannad also offers tracking solutions dedicated to niche markets where environmental conditions require a high level of reliability and expert know-how for that specific market.

Transport Canada and Industry Canada approved the Kannad INTEGRA 406 GPS ELT on June 13, 2011, followed by the United States.

The INTEGRA kit consists of a transmitter, mounting bracket, RC200 remote control panel, DIN-12 connector, and a SUB D 9-pin female connector. The approved outside whip or rod antennas are purchased separately.

The remote control panel has a three-position switch (ON, ARMED, RESET and TEST) and a red light. The ARM mode is mandatory during flight. The ELT can only be turned off the "ARM" position when the ELT is removed, or if the aircraft is parked for long periods of time, or for maintenance.

The remote control panel in our Cessna 182 Skylane is located in the upper lefthand corner of the instrument panel – out of the way, but still within easy reach in the event of an emergency. The remote control panel is connected to the ELT via a three-wire bundle (not supplied). The outside antenna is mounted on the fuselage near the tail, and can either be a whip or rod-type, depending on aircraft speed.

RC200 remote control panel.

The INTEGRA can be activated either automatically when the crash occurs (thanks to a shock sensor), or manually using a switch on the transmitter itself, or on the RC200 remote control panel.

The Kannad INTEGRA 406 ELT is designed to transmit on two frequencies: 406 MHz and 121.5 MHz. Again, the 406 MHz frequency is used by the COSPAS-SARSAT satellites for precise pinpointing and identification of the aircraft in distress; the 121.5 MHz is mainly used for homing in during the final stages of the rescue operations. Once activated, the transmitter operates continuously on 121.5 MHz with an output power of 100 mW. The modulation is an audio frequency sweeping downwards from 1420 to 490 Hz with a repetition rate of 3 Hz. During operations, a digital message is transmitted on 406.028 MHz every 50 seconds.

About Orolia SA

Orolia is a high-technology group specialized in precise Positioning, Navigation and Timing (PNT) through its five companies in which Kannad is one of them. Orolia is headquartered in Les Ulis, France with main offices in Neuchâtel, Switzerland; Rochester, New York; Basingstoke, UK; Portsmouth, UK; and Guidel, France.

For additional information on the Kannad INTEGRA 406 AF-Compact ELT, contact Bryan Hart (Kannad Aviation Sales Director, Americas) at 503.997.4455, or Bryanhart@kannadaviation.com (www.kannad.com).

Pete Halbauer, President of Skycom Avionics at Waukesha County Airport, Waukesha, Wis., expressed interest in the INTEGRA, and did the homework necessary to have it installed correctly in our Cessna 182. Since the INTEGRA was new on the market, Halbauer wanted to be able to train his technicians on the installation, and provide Kannad with feedback that would help other installers. Skycom's lead installer, Tom Douglas, did the actual installation under Halbauer's supervision. The feature Halbauer likes the most on the INTEGRA is the built-in GPS.

"If you go down, they are going to find you," said Halbauer, which was reassuring to know.

To purchase and install a Kannad INTEGRA 406 GPS in your aircraft, contact Pete Halbauer at Skycom Avionics, Inc. at 800-443-4490 or email petehalbauer@skycomavionics.com (www.skycomavionics.com). ❑

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Park Rapids Avionics....
Two Brothers, One Team In Lake Country

(L/R) Tim and Tom Hass in the hangar at Park Rapids Avionics, Park Rapids, Minnesota.

Itasca State Park, Park Rapids, Minnesota – the headwaters of the Mississippi River.

by Dave Weiman

PARK RAPIDS, MINNESOTA – The first thing that impressed me when I flew into Park Rapids Municipal Airport/ Konshok Field (PKD) recently to tour the facilities at Park Rapids Avionics, was the scenery of the lake country. Internationally known as the gateway to the Mississippi River headwaters at nearby Itasca State Park, the Park Rapids lakes area is a vacation destination, and a great place to work and live. Hundreds of crystal clear lakes, and millions of acres of state and national forest, create an outdoor paradise (www.parkrapids.com).

The winds were strong out of the south. It made my flight from Madison, Wisconsin fast, but the ride rough. VFR all the way, but it started to rain on my approach to Runway 17/35 (140 X 3244 ft turf). Runway 13/31 is paved (100 X 5498 ft).

The buildings at the airport are modern and well maintained, and the ramp, spacious. As I taxied to the ramp, I was welcomed by Tom Hass, President of Park Rapids Avionics. Hass founded the business in 2001, after years of training and work experience elsewhere.

Growing up on a farm in Audubon, Minnesota, Hass moved to Fairbanks, Alaska, when he graduated from high school in 1983 to farm and work in the construction industry. He moved to Alexandria, Minnesota to attend vocational school from 1990-93, where he received his education in avionics technology. Upon graduation, Hass moved to Sioux City, Iowa and worked for Jetsun Aviation from 1993-99, and Silverhawk Aviation in Lincoln, Nebraska from 1999-2001. He moved back to Minnesota to start his business in Park Rapids in 2001. In 2006, Hass welcomed his brother, Tim, as a partner in the business and together they purchased "Approach Systems" and renamed it "Approach Fast Stack" to complement their avionics business.

The Approach Fast Stack is a retrofit modular wiring system that interconnects avionics components with a central hub and ready-build cables for avionics installations. Pictured here is the "Pro-X Hub."

Approach Fast Stack is a retrofit modular wiring system that interconnects avionics components with a central hub and ready-build cables for avionics installations. The system is intended to increase the quality and efficiency of avionics installations, worldwide, by providing shops with a simplified way to pre-wire avionics installations.

Approach Fast Stack saves avionics shops time because they don't have to stop what they are doing to pre-wire an installation. A shop can order a wiring system in advance or during the installation, and Approach Fast Stack can manufacture and ship them a system within days, reducing downtime, while ensuring the quality of the wiring system for the customer.

Tim Hass, general manager of Approach Fast Stack,

Tim Hass, General Manager, Approach Fast Stack.

With the modern avionics available today, Tom Hass spends less time behind the avionics bench, and more time trouble-shooting avionics in aircraft using portable testing equipment.

showed me a world map marking the location of each of their clients, which are located as far away as the *Maldivian Islands.*

Tim Hass is in one building on the outer fringes of the airport with a staff of technicians making "Approach Fast Stacks," and Tom Hass is in a hangar right on the airport doing avionics repairs and installations. This might be why the two brothers get along so well, but neither is complaining about the other.

Park Rapids Avionics, Inc. is an FAA certified repair station with 1, 2 and 3 radio class ratings, and limited instrument and accessories ratings. The company is a member of the Aircraft Electronics Association (AEA), and as members, their technicians are continuously enhancing their skills by participating in manufacturer training to ensure that their services are up to date.

Park Rapids Avionics technicians can perform system trouble-shooting, repairs, overhauls, and installations and equipment interfacing on communication systems, navigation systems, instrumentation, and flight control systems. The company is an authorized sales and service center for all of the major manufacturers.

Tom Hass encouraged me to walk around and meet some of their technicians, while he took a few calls. Everyone I met seemed to enjoy their work and they love living "up north." Most of the employees are from the Park Rapids area, so having a job they like outside the Twin Cities metro, close to family and friends, means a lot. Speaking of the Twin Cities metro, Park Rapids is located just 144 nm northwest of Minneapolis/St. Paul International Airport (MSP), so about a 1-hour flight in most GA aircraft. Much of their business comes from the Twin Cities, surrounding states and Canada.

The flying bug hit Tom Hass when he was a kid living on a farm, but it wasn't until he moved to Sioux City, Iowa that he learned to fly. Hass says that his most memorable aviation experience was soloing for the first time, so he is looking forward to helping his son have that same experience, since he has shown an interest in flying. Hass and his wife, Marie, who also works in the business, have two daughters: Berivon, 26, and Amanda, 16; a son, Josh, 17; and one granddaughter, Amarie, 3.

Tom holds a Private Pilot Single-Engine Land & Sea Certificate, a Multi-Engine Rating, and is looking forward to getting his tail-dragger endorsement. He currently owns a Beechcraft Baron and a Cessna 172, but is looking to sell both aircraft and buying a Cessna 182, so if you know where he can find a good airplane, give him a call.

The furthest Hass has flown is Greenville, Maine to a seaplane

Park Rapids Avionics technician, Randy Van Bantavia, shows us what's behind an instrument panel.

Tom Hass with a new avionics installation Park Rapids Avionics did in a Piper Malibu. Before the aircraft left Park Rapids, Minnesota, it got a new paint job at Northwoods Aircraft Painting, and a new interior at Riveland Aircraft Interiors.

show, and to Provo, Utah. In addition to his membership in the Aircraft Electronics Association (AEA), Hass holds membership in the Aircraft Owners & Pilots Association (AOPA), and exhibits each year at EAA AirVenture in Oshkosh, Wisconsin, and Sun 'n Fun in Lakeland, Florida.

Hass considers himself very in tune with the issues confronting general aviation, and sees the "cost" of recreational flying as a major concern. Hass is also wondering how the industry will be able to modernize the air traffic control system and meet the ADS-B out requirement by 2020, when there is no working ADS-B component at this time.

Hass feels that the Aircraft Electronics Association is doing a great job in "helping to translate the legalese of the Federal Aviation Regulations into layman's language," but that more work is needed to get FAA officials to rule the same in all areas of the country so all aviation businesses have a level playing field. He would also like to see the FAA become more "business friendly!"

Hass recognizes and appreciates the work AOPA is doing with the GA Congressional Caucus in Washington. "I am all for less government," he says. Hass also likes AOPA's Legal Advisory Council. "I know of several people who have benefited from AOPA-designated attorneys, and it is well worth the cost of this additional membership service just to know you can call AOPA whenever you need expert advice."

Park Rapids Aviation, Northwoods Aircraft Painting (division of Park Rapids Aviation), and Riveland Aircraft Interiors, complete the picture at Park Rapids Municipal Airport. Jeff Voigt owns Park Rapids Aviation, and Lynn Riveland owns Riveland Interiors. In addition to providing full-service aircraft maintenance, Park Rapids Aviation is the largest Aerocet float sales and installation center in the world.

Both companies complement Park Rapids Avionics. "We work well together, and together we provide the aircraft owner with a one-stop service center," says Hass.

100LL self-service fuel is available 24/7. Jet A is available during normal business hours or by calling Park Rapids Aviation after hours. AWOS/ASOS is available over the VOR or by calling 218-237-8528.

For additional information on Park Rapids Avionics, or to schedule an appointment, contact Tom Hass at 218-237-1525 (www.parkrapidsavionics.com).

For additional information on Approach Fast Stack, contact Tim Hass at 218-237-7825 (www.approachfaststack.com). ❑

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J.B. Van Hollen
Wisconsin Attorney General & GA Pilot

Interview by Dave Weiman

I had the opportunity to sit down with Wisconsin Attorney General John Byron "J.B." Van Hollen last fall for a bit of "hangar talk," although the surroundings at his office in the state capitol was not what either of us are accustomed to when talking with fellow pilots. Yes, Attorney General Van Hollen is very much a general aviation pilot, appreciates the camaraderie, and welcomed the opportunity to get up to speed on major concerns facing the industry.

Van Hollen, 45, is a relatively new pilot, having obtained his certificate on September 10, 2001, and has been inactive in recent years due to an accident which left him plane-less for the time being. He had every intention on joining the Experimental Aircraft Association (EAA) and the Aircraft Owners & Pilots Association (AOPA) when he was actively flying, but those memberships have now taken a backseat to his career as Attorney General. But as soon as he gets active again later this year, he looks forward to joining both organizations and enjoying the benefits of his membership.

Van Hollen shared with me some of his experiences as a pilot, from taking lessons in a small northern Wisconsin community, to flying with one of the premier air show performers in the United States, and what it was like to be permitted to fly his Piper Warrior within restricted airspace to meet up with former President George Bush and Air Force One. He also shared with me some of the obstacles he has experienced in general aviation, which have created issues for him, including the cost to purchase a hangar, availability of rental hangars at smaller airports, and a lack of qualified mechanics.

And while he might not have been aware of some of the current issues affecting general aviation, such as new U.S. Customs & Border Protection regulations and procedures, airport security at GA airports, and how temporary flight restrictions have impacted general aviation, he commented on them, as not only a pilot, but as the top law enforcement officer for the State of Wisconsin.

Our meeting began with a warm welcome from his staff, and then the Attorney General himself. He welcomed me to his chambers, and I welcomed him to *Midwest Flyer Magazine*. Months later, following the fall elections in which he won reelection, we got together again for a photo shoot at a local airport at which time he was even more relaxed, and enjoyed meeting other pilots, and climbing into the cockpits of several aircraft.

JB: Dave; I appreciate the opportunity to talk with you a bit.

DW: Mr. Attorney General, what inspired you to learn to fly?

JB: I wanted to fly for years… I'd say since early adulthood, or my late teens. In fact when I was getting out of high school, one of the things I contemplated doing was to go into the Air Force, because I was so interested in learning the craft and trade of flying. But I decided to go to college. That's obviously the path that my family expected me to pursue, and I thought I would always have the opportunity to fly later. I always had a desire to fly, and fortunately, as I grew older, I started hanging around with more and more people that did fly, and it gave me – not only more impetus –

Wisconsin Attorney General J. B. Van Hollen in his office at the State Capitol in Madison, Wisconsin.

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Wisconsin Attorney General J.B. Van Hollen, enjoying some time looking at planes, and talking with pilots and mechanics, at Morey Airplane Company in Middleton, Wisconsin.

but I think more opportunity.

DW: What year was that?

JB: Very interestingly, I got my pilot license the day before the World Trade Center was hit with the planes; a very interesting time in aviation to get my license in aviation. It's kinda funny… You know what it's like hanging around airports with fly-boy buddies. People who knew I was preparing to get my license and the joke of course was as soon as I got my pilot's license, they decided to ban everybody from the airways.

DW: Yes, that was a sad day in aviation history. Where did you learn to fly?

JB: I am originally from up in Bayfield County. At the time I got my license I was the district attorney in Ashland County, and of course Ashland (Wisconsin) has a very nice airport, John F. Kennedy Field. And I had a number of friends that flew there and had planes based there.

DW: How long of a period of time did it take you to get your pilot certificate, from the day you started until you got your certificate? I see that smile on your face.

JB: It took a good, long time. It took me about a year and a half from the time I first started flying, to the time I actually got my license, and a big part of that was just finding the time to do it. During a considerable part of that time, I owned my own airplane and I enjoyed the training. I did not have a great need to have a license urgently, so it wasn't a problem for me to take so long to get my license.

DW: You know, the dropout rate for student pilots was a big issue up at Oshkosh this (past) year. EAA, AOPA, Jeppessen….they are all focusing on the student pilot dropout rate. It is 70%. So they did a survey to try and answer the question, why do people drop out of flying?

JB: I am sure that the economy would have some impact. I would hope people are not losing their interest in aviation.

DW: I don't think they are. Personally, J.B. – may I call you J.B?

JB: Please do. Absolutely!

DW: I think it is a matter of having the "commitment" to learn to fly and get that license and then to stay proficient. I don't think there's a large percentage of our population that has that commitment. They are inclined to jump on a snowmobile or a speedboat or a motorcycle, but to fly, that takes education; that takes commitment!

JB: It does take commitment. I understand that that is a problem. As I said, it takes a financial commitment. But it also takes a time commitment, because of course as we all know, you have to get your medicals, biennials…if you have a plane, you have to get your annuals….all of those things take time. And of course, you want to fly regularly, so you can stay proficient. And that may have something to do with it. I would not doubt that. I would like to think from my personal perspective that once someone starts flying, they would not want to quit, because it gets into their blood. Maybe we have too many people getting into aviation, or who start pilot lessons, who maybe did not have that strong of an interest going into it in the first place. I don't know.

DW: Could be. Hey, you mentioned that you owned an airplane. What type and model (of aircraft) did you have?

JB: Well, before I got my license, I purchased a 1974 Piper Warrior 161. It was a great plane! I really loved it. I unfortunately had a mishap that caused me to sell it to the insurance company a number of years back. So I have not been an active flier for a number of years for that reason and a couple of others.

DW: Where did you base your airplane?

JB: Originally, I based it in Ashland (Wisconsin). When I moved down to the Madison (Wisconsin) area, I rented a hangar and based it out of Waunakee.

DW: If you could own any airplane on the market today, what kind of an airplane would that be?

JB: I would love to own an Aztec right now. I am very interested in continuing to fly. With a wife and two rapidly growing kids, and with the places I am interested in flying to involving Waunakee and my place in Bayfield County, I am very interested in useful load…I am very interested in power and being able to get in and out of smaller airports. And my experience in the Aztec, and the advice I get from my very experienced pilot friends, makes me believe that it would be a very useful and practical plane for the applications I would hope to use it for.

DW: You mentioned that you go to EAA AirVenture (Oshkosh, Wisconsin), and you try to get up there as often as you can. Are you an EAA member?

JB: I'm not. I have been a big fan of EAA, however. Not because I am personally involved with experimental aircraft, but I love aviation. And for me, more than anything, going up there is an opportunity to see planes – not from a historical perspective, looking at vintage aircraft, military aircraft – (rather), it is really fun for me to watch the "air show." As someone who has taken to the cockpit a number of times, to see what some of these pilots can do in the air show is just amazing to me.

I remember the first time my flight instructor had me intentionally go into a stall; it just about scared the living bejesus out of me. And to watch these people up there doing amazing things to make something as simple as a stall seem so routine, it is unbelievable; just astounding to me!

DW: When I first walked in, I said that I saw (air show performer) John Mohr in Oshkosh, and you said that he was a dear friend. What do you think of his act?

JB: I think he has the best act in the business. I've met and gotten to know some of the other pilots in the industry. Obviously, there is tremendous talent out there, and maybe I have a little bit of bias, but I think the world of John and Lyn Mohr. John obviously has a tremendous background in aviation.

I have had an opportunity to be up with John in his own aircraft…I have had an opportunity to be up in his helicopter….I've experienced just how talented of a pilot he is, from the ground and in the air. It is really neat to see someone's love for aviation, to be able to continue on as he has.

DW: John is a fabulous performer, that's for sure! Are you an AOPA member?

JB: I am not. I apologize…the lack of memberships have everything to do with the fact that I have not been actively flying. The "job" makes it very, very difficult. I anticipate that as time progresses, I will get more actively involved in aviation again, which would include memberships and all of the wonderful things that come with them.

DW: Very good, J.B. We would welcome you in EAA and AOPA and in all of the (other) organizations. With that in mind, are you familiar with some of the top issues facing general aviation today?

JB: I don't necessarily know what

Wisconsin Attorney General J.B. Van Hollen is looking forward to buying his next airplane.

the top issues general aviation is facing currently. Because I have not been active, I have not kept apprised of what's going on in the aviation industry.

DW: You mentioned a little earlier the "cost of flying…" That cost might be a big reason why people drop out. And right now gas in the Madison (Wisconsin) area is running $4.50 a gallon. So even though you are not totally in tune on the issues of aviation, that is a big issue. Another big issue is the potential shortage of 100LL octane fuel, and we are looking at alternative fuels, so hopefully we can attack both of those issues…the cost of fuel, and our fuel supply in the coming months and years.

JB: I can tell you I was not aware of the 100LL issue. The cost of aviation fuel is something I did not considered because small general aviation aircraft have pretty good burn rates. For me, the cost of actually flying somewhere versus driving somewhere, the cost of fuel was pretty equivalent because even though it might cost more, you use less of it and fly a more direct route than if you drive. So I never considered fuel costs to be a big issue because automobile fuel costs went up as well commensurately. For me, the big issue when it came to costs – and maybe I am the only one who is experiencing this – I want to fly to an airport, which is closer to home and become part of the local pilot community. The cost of being able to buy a local hangar, or the availability of rental hangars at some of the smaller airports, I was finding to be a little bit difficult. I was also finding – and once again maybe it was where I was located – but to actually find qualified airplane mechanics to do my annuals and things along those lines, and do repair work, were a little harder. I wasn't finding them (mechanics) as regularly at smaller airports as it seemed when I was starting my flying career, and that lack of convenience created an issue for me as well.

DW: That's a good point. When you buy an airplane, give me a call. I will give you some options as to where to have it maintained.

Just to go over a few issues…one big one is trying to protect our existing airports, whether a privately-owned airport or a public-use airport, trying to protect the airspace, the approaches, the departure ends of runways, and so forth – encroachment! Another one is airport security. And you being the top law enforcement officer in the State of Wisconsin, I bet that is a big concern for you.

JB: Absolutely! Airport security is a big concern. And I think smaller airport security, compared with the larger airports where the airlines regularly fly in and out, is something generally speaking has gone unaddressed. If there is a simple way for people to access larger airports with an aircraft that can fly out of a smaller airport, planes that can fly out of uncontrolled airports have the ability to cause damage elsewhere as well. But in regards to encroachment, I think that is a very big issue because an awful lot of people want to casually fly out of their own small airport, go up, do some touch-and-goes, fly in the pattern…just go up and do a little sightseeing in their general community. I think people who want to fly at their own recreational level are hesitant to do so. So smaller airports are very, very important! I am personally at risk of sounding wrong, having my own little landing strip up on my land from where I am from in Bayfield County.

DW: As you get more active in aviation again, and become a member of EAA and AOPA, would you use your influence in your office in the State of Wisconsin to try to support general aviation.

JB: As Attorney General, one of the things I have tried very, very hard to do is to make sure I use my office only for things that are appropriate for effectuating the duties as Attorney General. There are a lot of legislative changes, of course, that I would have liked to politically seen done in Wisconsin that are not really related to being Attorney General, so I try to keep my distance. Obviously, if the exposure I provide as an individual, because of my capacity as Attorney General, can give positive exposure to aviation, absolutely, I would do that. I am very interested in advancing the cause of aviation and of private pilots, and if being a pilot myself and my interest in it can help the cause, then it is something I would love to do. I would be hesitant, of course, to use any influence that would come from my position legally though.

DW: Very good! I guess my last question is about the Temporary Flight Restrictions (TFRs) that are set up when the President comes to town, whether it is Obama or (when it was) former President George Bush. They come into an area and shut down a pretty large area of airspace, and that shuts down all of the fixed base operations, except for commercial airlines. Any comment about TFRs?

JB: With regards to that, I am one of few pilots that have had direct experience in being involved with presidential motorcades and things along those lines, and it's not just flights that are interrupted. Whenever the motorcade is traveling, it interferes with all sorts of transportation and the ability of people to move around. I can certainly understand why that's done. The President of the United States is a very consequential position and job in this world, and unfortunately, there are some crazy people out there who would take whatever risks necessary to take their lives, and I think we need to do whatever we can to protect them, all be it inconvenient and expensive. Some of the greatest risks to these people come from the air versus on the ground, so I don't know that closing those airports temporarily – the inconvenience – is something we necessarily want to eliminate.

I can tell you from a pilot's perspective – this may even be a better story than I told you earlier – when I was the United States Attorney for the Western District (of Wisconsin), President Bush was coming in – I think it was Eau Claire (Wisconsin) – and I was going to be going up

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there to be part of the motorcade for legal reasons. I would be legal counsel for the United States of America for this jurisdiction at the time. And instead of driving to the airport to meet Air Force One, I thought it would be much more convenient to fly my own plane there. Of course we cleared that with everyone, so the airspace was closed to everyone but Air Force One and me! So suffice to say, I did not have to watch out the cockpit window for other aircraft while flying into that airspace because no one else was there but me. Of course, they wanted me to land in sufficient time so I was there and on the ground and out of the way. I think a lot of eyes opened when a little Piper Warrior landed at the closed airport and taxied up to the FBO and I popped out. So I guess I am one of the few people who have gotten to violate that no fly zone.

DW: That sounds like a lot of fun to be in the position that you are in and to do that is fantastic!

Wrapping up our interview, J.B., do you have some other aspirations down the road beyond being Attorney General?

JB: *Flying some more!* I really don't in regards to politics. I didn't really have an aspiration to become Attorney General. It just seems as if the time was right and some of the things I believe I had to offer the people of the State of Wisconsin – law enforcement in particular – warranted me to run for Attorney General, and I was very glad that I had done so, and it's part of the reason I am running (ran) for reelection. I will never rule out any possibility of what I may do in the future, because I really play it by ear and I determine what I think my calling in life is. My aspirations always will be to be able to be a good family man and to be around and available for my wife and kids, and that always takes a high priority and can impact anything else I do. But beyond that, the future is very uncertain for me, and I'm just fine with that. I look forward to having the opportunity at some juncture in life to have a job that's a little less busy so I can do the other things I enjoy again, including flying.

DW: *Midwest Flyer Magazine* covers an 11-state area, Minnesota and Wisconsin being two of those states, and I understand that you went to St. Olaf College in Northfield, Minnesota, and the University of Wisconsin here in Madison (Wisconsin).

JB: Correct! My undergraduate degree is from St. Olaf College in Northfield, Minnesota, and I got my law degree from the University of Wisconsin in Madison.

DW: Thank you for your time, J.B

JB: Thank you, Dave! ❑

Aviation Museums

B-17 Memphis Belle® Undergoes Restoration At National Museum of USAF

DAYTON, OHIO – As the United States approaches the 70th anniversary of its involvement in World War II, one of the most famous aircraft from that war – the B-17 Flying Fortress *"Memphis Belle"* – recently reached two milestones in its restoration at the National Museum of the U.S. Air Force. Both wings were mated and the landing gear was extended.

In May 1943, the *Memphis Belle* became the first U.S. Army Air Forces heavy bomber to complete 25 missions over Europe and return to the United States.

The *Memphis Belle* arrived at the museum in October 2005 from Memphis, Tenn., where it was on display along the banks of the Mississippi River. The museum staff began a careful, multi-year conservation and restoration effort

The "Memphis Belle" at the National Museum of the U.S. Air Force.

– including corrosion treatment, the full outfitting of missing equipment and accurate markings – to bring the aircraft back to pristine condition. The pilot of the aircraft during World War II, Lt. Robert Morgan, named the aircraft after his wartime girlfriend, Margaret Polk, of Memphis, Tenn. Morgan chose the artwork from a 1941 George Petty illustration in *Esquire* magazine (www.nationalmuseum.af.mil). ❑

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Harry Stern Field, Wahpeton, N.D., during reconstruction and following project completion.

ACPA Recognizes Ulteig For Wahpeton Runway Project

FARGO, N.D. – The engineering firm "Ulteig" will receive the "Silver Award" from the American Concrete Pavement Association (ACPA) for its work on the Runway 15-33 reconstruction project at Harry Stern Field in Wahpeton, N.D. ACPA selects award winners from throughout the United States and Canada each year for quality concrete pavement projects. The award will be presented December 2, 2011, at the annual ACPA Excellence In Concrete Pavement Awards Banquet in Indian Wells, Calif.

The Wahpeton project consisted of 42,500 square yards of 8-inch concrete pavement, 46,000 square yards of aggregate base and recycled asphalt millings, new runway edge lighting, and 12,500 linear feet of storm sewer and navigational aids. Ulteig addressed engineering, operational and financial challenges to make the project a success.

Ulteig's Associate Vice President of Aviation, Jeff Klein, said the project will have a significant economic impact in the region. Corey Leinen was Ulteig's Onsite Field Inspector during the reconstruction.

Thirty-one projects were recognized by ACPA in 2011, and Ulteig Vice President Jon Scraper said that he is proud that Ulteig's Wahpeton project was among them.

Melvin Ulteig founded Ulteig in 1944 with the vision of bringing electricity to people in the rural Midwest. Today, Ulteig is a nationally accredited company, ranked number 207 of the top 500 engineering design firms in the nation by Engineering News Record, and is considered among the top firms in electrical transmission and distribution services. The company is organized into Building Services, Civil, Energy, and Land Services sectors, and has offices in Bismarck, Fargo, and Williston, N.D.; Detroit Lakes and Minneapolis, Minn.; Sioux Falls, S.D.; Denver, Colo.; and Cedar Rapids, Iowa. ❑

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CHICAGO, ILL. – Chicago-area airports are getting greener with the addition of solar energy collectors to be installed on as many as 60 acres at O'Hare International Airport, alternative fuels for ground vehicles, and increased composting.

Seven ground-based solar photovoltaic collection sites are planned at O'Hare to generate 36 million kilowatt hours of energy per year, enough energy to power 3,800 homes annually. Currently, the only on-airport solar facility in Chicago is at O'Hare at the Chicago Fire Department firehouse.

Alternative fuels for private and commercial vehicles will include bio-diesel, ethanol, and electric-charging systems, as well as traditional fuel. Electric vehicle charging stations are currently provided free of charge at both the O'Hare and Midway parking garages.

Midway Airport is following O'Hare in going green with a composting program to handle food waste from the airport's 13 restaurants. A total of 200 tons of compost waste from both airports will be diverted from landfills each year. ❑

Minnesota Aviation Company Goes Green

MINNEAPOLIS, MINN. – Determan Fluid Solutions is going green with new environmentally-friendly initiatives including reusing fuels, recycling metal, and using efficient lighting.

Determan Fluid Solutions provides hazardous waste removal in the Midwest. The Environmental Services Team works together to remove hazardous waste from the environment by recycling petroleum based fuels that are no longer fit for use.

Determan Fluid Solutions also recycles above-ground and underground storage tanks. Scrap metal and unusable tanks are also recycled.

Determan Fluid Solutions is embarking on an energy-efficient lighting program. This began with the installation of energy-efficient high bay lighting in the warehouse. Determan Fluid Solutions has installed the energy- efficient lights in the shop services building and manufacturing plant.

In addition to recycling hazardous waste and the new lighting program, all of the cardboard and paper at Determan Fluid Solutions is recycled.

Determan Fluid Solutions is a Minneapolis-based company that provides fluid solutions to customers across the planet. The main markets served are aviation, bio diesel, ethanol, propane, and refined fuels (www.determan.com). ❑

Coalition Seeks To Strengthen Local Economies With Environmental-Friendly Industry At Airports

GWINN, MICH. – The Upper Michigan Green Aviation Coalition (UM-GAC) has completed its first set of conferences, which address the latest trends in aviation and sustainability. According to Vikki Kulju, executive director at Telkite Technology Park at Sawyer International Airport, Gwinn, Michigan, and a member of the Upper Michigan Green Aviation Coalition's management team, each conference focused on specific topics based on the niche of the area where the conference was held. The coalition is looking to strengthen local economies by fostering environmental-friendly industry at three Upper Peninsula Airports. In 2010, a $600,000 grant from the U.S. Small Business Administration (SBA) was awarded to UM-GAC. The grant was part of SBA's Innovative Economies program. ❑

HondaJet Fuselage To Be Built In Alabama

ORANGEBURG, ALA. – Honda Aircraft Corporation has announced that GKN Aerospace will assemble the fuselage of the HondaJet in Orangeburg, Alabama. Fuselages will then be shipped to Honda's Greensboro, North Carolina, plant for final aircraft assembly. Assembly will begin in mid-2012. GKN was attracted to Orangeburg because the facility already existed and met their specifications. ❑

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Excise Fuel Taxes...

by David Mann, President
Wisconsin Aviation Trades Association


David Mann

Several months back, I wrote to many of our members and advised them that the Internal Revenue Service (IRS) was auditing our airport and fixed base operation – Batten International Airport in Racine, Wisconsin – over an excise tax issue. If operators sell jet fuel, they probably realize that they are charged a $0.244 per gallon excise tax, which is the over-the-road rate. The excise tax on jet fuel is $0.219. This is the rate operators should charge their customers. The IRS charge us the over-the-road rate and puts the tax money collected into the U.S. Transportation Fund. The money remains in the transportation fund if operators do not apply for a refund of the $0.025 per gallon. When operators apply for a refund, the IRS will send them a check and then move the appropriate amount of money into the Aviation Trust Fund. If operators don't apply for a refund, the money will never be moved from the general transportation fund to the aviation fund.

In order to receive a refund, operators have to be designated as an "ultimate vendor," meaning that they are the last vendor to sell the fuel before it is burned. No one else may apply for a refund.

The IRS came up with this idea because they thought that truck drivers were coming to airports and filling up their rigs because the tax was less. (I really don't think that was a problem.)

Several years after this program started, the IRS came up with a form "Model Q" that they said had to be filled out and signed by each customer. The form stated that the customer would not apply for a refund. During the audit, our airport contacted as many of our customers as possible and got predated Model Q forms signed and returned.

My question is, "why do operators need to have a pilot fill out the form if he cannot be an ultimate vendor?" The IRS did not buy this and said that we had to return all refunds of excise tax since 2008. It would be quite a large amount of money if the airport had to return three (3) years of sales of jet fuel at $0.025 per gallon.

We appealed. During the appeal, I only brought up the question above to the new appeals agent. Finally, the IRS appeals agent agreed that the form was never meant to be used for this purpose. That form is intended to be used in a non-tax situation, such as for airline fuel being delivered by agents like Colt and Mercury. The IRS has said we don't have to give the money back; we don't have to use "Model Q" forms any more, and I have closed our audit. The IRS is now issuing a directive to its auditors to cease audits of Model Q forms at fixed base operations.

If your company is being audited for this reason, now or in the future, I will be glad to provide you with copies of our release. Email me at ndmann@battenairport.aero or call 262-631-5620. ❑

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www.fdlskyport.com
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Johnson Aviation Insurance
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NationAir Aviation Insurance
www.nationair.com
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National Air Transportation, Ass'n
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Trimcraft Aviation
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www.TrimcraftAviation.com
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West Bend Air, Inc.
www.wbair.net
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Juneau • Madison

New Aviat Dealer In Wisconsin

RICE LAKE, WIS. – Aviat Aircraft has signed an agreement with Midwest Husky Sales and Service, LLC, which operates from Rice Lake Air Center, to offer sales and service for all three versions of the Husky A-1C aircraft. The new dealership will be responsible for Husky sales in Wisconsin, Minnesota, Iowa, Illinois and Michigan.

(L/R) Jim Larsen, Mike Nelms, and Larry Schlasinger are representing Aviat Aircraft at Midwest Husky Sales & Service, Rice Lake, Wisconsin.


Aviat Husky A-1C

The Husky A-1C is available with 160, 180, and 200 hp engines. Huskys are high-wing aircraft with two seats, STOL performance, and have a 2,200-lb gross weight capacity, and a cruising speed range of 55 to 140 mph.

Rice Lake Air Center has established a global reputation for servicing TBMs and handles a large percentage of all TBM maintenance. The company also has a flight school, used aircraft for sale, fuel sales, and a Part 135 charter operation with CJ-1 and a King Air 90 aircraft. For more information, visit www.MidwestHusky.com, or call 612.619.5782 (www.AviatAircraft.com). ❑

Red Wing Aeroplane Company Names New Director of Operations, Chief Pilot

BAY CITY, WIS. – Red Wing Aeroplane Company, one of the nation's leading private air charter companies, has named John Phillips director of operations and chief pilot.

Phillips is a native of Phoenix, Ariz., and has been with Red Wing Aeroplane Company for three years, according to company founder and president, Wes Converse.

"John began with us as a part-time pilot at our former Phoenix base," Converse said. "He moved to Red Wing to become a full-time pilot, and we later promoted him to chief pilot. Now, we're thrilled that he has agreed to become our new director of operations."

In addition to maintaining his pilot status, Phillips will manage the company's dispatchers and travel coordinators, while also overseeing the company's fleet of planes, which includes five business jets.

"Red Wing Aeroplane Company has been a terrific company to work with, and I'm honored to have been chosen as the new director of operations," Phillips said. "We've experienced a tremendous amount of growth in the time I've been here, and we're now flying throughout this hemisphere. We expect this growth to continue."


(L/R) John Phillips and Howard Ives of Red Wing Aeroplane Company with one of the company's Cessna Citations.

Phillips succeeded Howard Ives of Rochester, Minnesota, as chief pilot. Ives retired after 26 years as a pilot with Northwest and Delta Airlines. In addition to his flying duties, Phillips will supervise Red Wing Aeroplane Company's staff of 17 pilots.

Located at Red Wing Regional Airport in Bay City, Wisconsin, Red Wing Aeroplane Company provides first-class air charter services 24 hours a day, seven days a week. Its fleet of business jets carries passengers throughout the United States, as well as to South America, Central America, Canada and Alaska, providing personalized concierge service for its clients. The company also provides aircraft management services, along with maintenance services at its world-class, 14,000-square foot maintenance facility at Red Wing Regional Airport. For more information, visit www.redwingaero.com. ❑

Wisconsin Aviation Hall of Fame Honorees

OSHKOSH, WIS. – The Wisconsin Aviation Hall of Fame honored aviators Daniel Donovan, Bill Rewey, Dennis Sullivan, and, posthumously, Marc Mitscher and Steve Shalbreck, during ceremonies held October 29, 2011 at the EAA AirVenture Museum in Oshkosh, Wis.

Inductees included airline pilots and FAA safety counselor, Dan Donovan of Green Bay; Bill Rewey of Madison, who flew F4U Corsairs following World War II, and went on to be known as "Mr. Pietenpol;" and Brig. Gen. Dennis Sullivan of Chippewa Falls, who in 1962, was chosen for the Central Intelligence Agency's project "OxCart" to pilot a Mach 3-plus A-12 reconnaissance airplane to replace the U-2.

The 2011 Aviation Pioneer inductees included Marc Mitscher and Steve Shalbreck. Born in Hillsboro, Wisconsin, Mitscher served as the First Commander of the USS Hornet in 1941, launching Jimmy Doolittle's raid on Tokyo. Steve Shalbreck of Rhinelander, was the first manager of the Rhinelander-Oneida-County Airport from 1925-59. ❑

Rose Dorcey

(L/R) Bill Rewey, Brig. Gen. Dennis Sullivan (ret.), Charles King and Doug Hensley accepting for Adm. Marc Mitscher, Dan Donovan, and Rose Shalbreck accepting for Steve Shalbreck.

Kansas Aviation Hall of Fame Inducts Lacy & Collins

WICHITA, KAN. – Pilot and aviation businessman, Clay Lacy, will be inducted into the Kansas Aviation Hall of Fame, November 5, 2011 at ceremonies to be held at the Kansas Aviation Museum, along with SR-71 test pilot, Ken Collins.

Lacy's career included a stint in the U.S. Air Force, the airlines, air racing, aircraft sales, the air charter business, and as a director and videographer specializing in air-to-air sequences for Hollywood films and television commercials. In October 1964, Lacy introduced the first business jet to Van Nuys Airport (VNY), and from 1964 to 1967, he worked as manager of Learjet sales in 11 western states. In 1968, Lacy established the first jet charter service west of the Mississippi River. Lacy is still owner and chief executive officer of Clay Lacy Aviation.

Ken Collins, famed SR-71 test pilot, will also be inducted, and pilots Micky Axton and Tex Johnston will be inducted posthumously. ❑

Air Racing Pilot Awarded Blériot Medal

WEST LAFAYETTE, IND. – The Fédération Aéronautique Internationale, which establishes rules for the control and certification of world aeronautical and astronautical records, awarded the Louis Blériot Medal to air racing pilot Richard "Smokey" Young at a ceremony November 17, 2011 in Los Angeles.

Young established his world speed record on September 11, 2010 at Thermal, Calif., in a Western Air Racing Formula 1 aircraft. The record, for aircraft weighing between 660 lbs. and 1100 lbs., was set at 242.7 miles per hour. The record was set using gasoline derived entirely from renewable or 'green' resources, named 100SF, and designed by Swift Enterprises Ltd. of West Lafayette, Ind. It is intended to replace the leaded aviation gasoline currently in use. ❑

Betty Skelton, First Lady of Aerobatics

WINTER PARK, FLA. – Aerobatics legend and International Aerobatics Club Hall of Fame inductee, Betty Skelton - the "First Lady of Aerobatics" - died at her home in Winter Park, Florida, September 1, 2011, at the age of 85. Skelton was a pioneer aerobatic competitor and air show performer, winning the U.S. National Women's Aerobatic Championships for three straight years (1948-1950). She flew the Pitts Special "Lil Stinker," designed by Curtis Pitts, which is now displayed in the National Air & Space Museum. Skelton also flew in the Cleveland National Air Races and achieved speed records in a P-51 Mustang (421.6 mph) and an altitude mark of 29,050 feet in a Piper J-3 Cub. ❑

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Price County Airport activities are free to the public.

Flying Scotchman's Karol Arneson Remembered

(L/R) Roy and Karol Arneson of Flying Scotchman, Inc., Minneapolis-Crystal Airport, with their daughter-in-law and son, Becky and Randy Arneson.

MINNEAPOLIS – Karol J. Arneson of Flying Scotchman, located at Minneapolis-Crystal Airport, passed away November 17, 2011 at Minnesota Masonic Homes North Ridge in New Hope, Minnesota. She was 87.

Flying Scotchman operated for 53 years, and during that time, trained thousands of pilots, many of whom went on to successful careers in aviation. During those 53 years, not one student or instructor was ever injured.

Karol Arneson was the person customers would call to schedule planes. She treated her high school and college-age customers as her kids, although she and her husband, Roy, had seven boys of their own: Ross, Randy, Bruce, Bradley, Richard, Roger, and Robert. The Arnesons were married in 1946.

Karol Arneson was as knowledge-able about the business and industry issues as her husband, who managed the business. She spoke up at public meetings and through the media when local fixed base operators and airports were threatened. Karol Arneson would invite legislators and members of the Metropolitan Airports Commission to visit their facilities to learn more about general aviation.

Flying Scotchman began as a flying club, and in 1959, the Arnesons made it into a business. The business grew to become one of the largest fixed base operations in the Twin Cities, employing 15 people and operating 13 aircraft.

The Minnesota Aviation Trades Association (MATA) honored Roy and Karol Arneson in 2009 for 50 years of service to the aviation community. Flying Scotchman closed its doors on February 1, 2011, less than a month before Roy Arneson passed away. ❑

Missouri Aeronautics Director To Lead National Group

NASHVILLE, TENN. – Joe Pestka, Administrator of Aviation at the Missouri Department of Transportation, is the incoming chairman of the National Association of State Aviation Officials (NASAO). Pestka was elected at the organization's conference in Nashville, Tenn., in September 2011. ❑

Michigan Engineer Recognized For Distinguished Service

NASHVILLE, TENN. – Mark Noel, P.E., manager of the Project Development Section for the Michigan Department of Transportation, Bureau of Aeronautics, received the 2011 National Association of State Aviation Officials (NASAO) "Distinguished Service Award" for his work with the bureau as an engineer. Noel has worked for the State of Michigan for 23 years, and is a licensed pilot. ❑

Costello Will Not Seek Re-Election

Jerry Costello

WASHINGTON – U.S. Congressman Jerry Costello (D-IL) has announced that he will not be a candidate for re-election to Congress in 2012 after 23 years of service. During his tenure, Costello helped to enhance Scott Air Force Base and supported educational opportunities at Southern Illinois University.

Since 1997, military and civilian aircraft have jointly used Scott AFB, with civilian operators referring to the facility as MidAmerica St. Louis Airport. ❑

PEOPLE IN THE NEWS CONTINUED ON PAGE 58

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NATA President To Give Keynote Address At Minnesota Technician & Trades Joint Conferences

BROOKLYN CENTER, MINN. – The President of the National Air Transportation Association (NATA), Jim Coyne, will give the keynote address at the Minnesota Aviation Trades Association (MATA) and Minnesota Aviation Maintenance Technician joint conferences, Monday, March 19, 2011 at the Earle Brown Heritage Center in Brooklyn Center, Minn. Speaking before as many as 400 fixed base operators and aircraft technicians, Coyne will discuss the critical role aircraft maintenance technicians plays in the air transportation system, and how important recurrent training, like that provided at the conference, is to air safety. Coyne will be speaking at the luncheon beginning at 11:35 am.

Coyne will address fixed base operators and vendors at a dinner Sunday, March 18, in his honor, at which time he will provide an update on national issues, including any pending proposals and rule making. The dinner will be held at the Embassy Suites, located immediately adjacent to the Earle Brown Heritage Center. The reception begins at 5:30 pm. Dinner will be served at 6:30 pm.

Photo Courtesy of NATA.

The Post Avgas Briefing at EAA AirVenture 2010, Oshkosh, Wis. (L/R) Craig Fuller, AOPA; Tom Poberezny, EAA; Jim Coyne, NATA; Pete Bunce, GAMA; and Ed Bolen, NBAA. Coyne will be the keynote speaker at the joint conferences of the Minnesota Aviation Trades Association (MATA) and Minnesota Aviation Maintenance Technicians on March 19, 2012 in Brooklyn Center, Minn..

After graduating from Harvard with a Master's Degree In Business Administration, Jim Coyne became the CEO for his family's business in Philadelphia and served one term in Congress in the 1980s.

In January 1983, President Ronald Reagan asked Coyne to join his staff as director of the White House Office of Private Sector Initiatives. For two years, he led the administration's efforts in support of pro-business, private sector solutions to many of our nation's toughest challenges, in areas like education, transportation, health care, public safety, and computer literacy. After the White House, he served as president of the American Consulting Engineers Council, the American Tort Reform Association, and Americans to Limit Congressional Terms.

In 1994, the National Air Transportation Association (NATA) selected Jim Coyne as its president and CEO. Coyne is an experienced pilot and aircraft owner with over 6000 hours in his logbook. He holds an Airline Transport Pilot Certificate.

As NATA president, Jim Coyne has visited close to 1,000 FBOs and aviation service businesses across the country. He also regularly presents the viewpoint of the general aviation industry before congressional committees, the Federal Aviation Administration, Transportation Security Administration, and other federal agencies. He works closely with NATA members across the

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country, as well as the other aviation associations in Washington. In recent years, he has worked to develop strong relationships with pro-business, pro-aviation governors and state legislators. Local aviation issues are equally important.

Jim Coyne serves on an airport commission and regularly helps airport managers and commissioners understand the importance of their fixed base operator and general aviation users and tenants. His efforts have led to the creation of aviation advocacy groups at airports across the country.

A lifelong aviation safety advocate, Jim Coyne serves on the Board of Governors of the Flight Safety Foundation and was the founder and first president of the Air Charter Safety Foundation.

Jim Coyne's wife, Holly, is also an instrument and multi-engine rated pilot. Their sons, Sandy and Michael, are private pilots. Their daughter, Kate, and four grandchildren have yet to complete their flight training. The Coynes live in McLean, Virginia.

Conference Registration

To register for the 2012 Minnesota Aviation Trades Association Conference, email Sara Wiplinger at **swiplinger@wipaire.com, or call 651-209-7168.**

Additional information is also available at the MATA website: **www.mnaviationtrades.org.**

To register for the 2012 Minnesota Aviation Maintenance Technician Conference call **1-800-657-3922 ext 7183.** Additional information is available at **www.dot.state.mn.us/aero.**

The joint aviation conferences make up Minnesota's largest aviation event of the year, and include a large exhibition of vendors specific to aircraft maintenance and fixed base operators. For additional information on exhibiting, contact Janese Thatcher at 651-234-7183. ❑

You Are Invited... Minnesota Aviation Day At The Capitol

ST. PAUL, MINN. – On Tuesday, February 7, 2012, the entire aviation community will come together at the Minnesota State Capitol to visit with their State Senators and Representatives to tell them how important aviation and their local airports are to them and to their local communities. Anyone actively involved in aviation in Minnesota, and who believes in the importance of their local airport, is encouraged to participate: pilots, fixed base operators, airport managers, airport commissioners, mayors, city council members, business aircraft owners and operators, corporate flight departments, aircraft technicians, aviation educators, and aviation support service professionals including insurance agents, aircraft parts suppliers and others.

The event will kickoff with a welcome breakfast at 9:00 a.m. on the first floor of the Capitol. At the welcome breakfast, each participant will be handed a packet of materials, which will contain handouts to be left with legislators and suggested talking points to be covered during their visit. Participants will be asked to visit their State Senator and Representative(s).

At 12:00 noon, participants will attend a box lunch meeting in the Capitol. During lunch, participants

Photo by EOE Photography

will have an opportunity to share their views of the day, the response from their state legislators, and complete an opinion survey regarding *Aviation Day At The Capitol*.

Hosting "Minnesota Aviation Day At The Capital" is the Minnesota Aviation Trades Association (MATA), Minnesota Council Of Airports (MCOA), and the Minnesota Business Aviation Association (MBAA).

To attend or for additional information, contact Gordon Hoff, Executive Director, MBAA at gordon.hoff@comcast.net or call **651-398-4649.** The deadline to register for *Aviation Day at the Capitol* is January 24, 2012.

In addition to attending yourself, you are encouraged to organize a Plane Pool or Car Pool of equally concerned persons. Transportation from South St. Paul Municipal Airport/Fleming Field (SGS) will be provided to all fly-in attendees who RSVP with their ETA to Glenn Burke, Airport Manager, at **651-554-3350.** ❑

Online Course For Winter Flying

PILOT SAFETY

Pilots need to have a solid grasp of weather concepts so they can make smart aeronautical decisions based upon what they see on weather charts and outside their windshield. The Weather Wise series of online courses from the AOPA Air Safety Institute (ASI) bridges the gap between textbook theory and real-world conditions.

With their Weather Wise: Icing and Precipitation course, ASI starts with weather theory, then discusses practical information on how to deal with precipitation on the colder end of the thermometer. With emphasis on icing, freezing rain, and sleet, the course discusses the various types of precipitation, how it is formed, and the impact it can have on light aircraft. The course discusses VFR and IFR-specific strategies pilots can use to avoid ice, both on the ground and in the air.

The free online course is available at www.airsafetyinstitute.org/wxwise_precip. ❑

MINNESOTA AERONAUTICS BULLETIN www.mndot.gov

The State Of Minnesota Provides This Technical Bulletin In The Interest Of Aviation Safety And To Promote Aeronautical Progress In The State And The Nation

Christopher Roy, Director **Dan McDowell, Editor**

Minnesota DOT Office of Aeronautics
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YOU Are The Key!

by Christopher Roy

Director
MnDOT Office of Aeronautics

Christopher Roy

The holidays are here and we are firmly in winter's grasp. Ice and snow are the norm, and temperatures that are never even fun to talk about, have settled into the region. But it is still a great time to fly, and it is also a great time to begin improving our safety practices.

In about 80% of aircraft accidents, the aircraft itself is working fine until a runway incursion accident, controlled flight into terrain, stalls, spins, or loss of control happens. Through all of these situations, there is one very important and common link. That is the "pilot."

The pilot is the one in charge of the flight. He or she is the one who, from the moment they climb into the aircraft until the moment their flight is completed and they climb out, remains the person responsible for the safe operation of that aircraft. From walk-around, to taxi, to flight, to landing, to shutdown and securing the aircraft on the ramp, the pilot-in-command IS the responsible party.

Everything related to the safe operation of that aircraft in all phases of its operation, must be done with forethought, intelligence, sound judgment, and care. It matters little whether you are flying a J-3 or a G-650, the principles and rules are the same. You, as the pilot-in-command, are responsible! Thus, *you* are the key to safety in aviation.

Please be sure to plan well before you fly, and stay alert when you fly. Remember to close your flight plan, and before you shut down, check 121.5/406 MHz to be sure your ELT hasn't accidentally turned on.

Enjoy the winter season and the spectacular vistas it has to offer. ❑

Kit Up For Winter Flying

Winter flying can be visually spectacular with its brilliant blue skies dotted with puffy white clouds and sparkling, snow-covered fields as far as the eye can see! It can be the perfect opportunity for a pleasant cross-country, or a short point A to point B jaunt.

Before setting out for a hike, ATV ride, snowmobile trek, or a flight, make sure you have a properly prepared survival kit with you. Even the shortest jaunt can quickly become a survival situation, especially when temperatures fall below freezing. In addition, it is very wise to let someone at both ends of your "trip" know when you are leaving, when you plan to arrive, what route you plan to take, (and if you carry a cell phone), what that number is.

One might ask why this would be done. The answer is really simple; to help you survive. Any walk in the woods, ATV ride, snowmobile ride, or even a drive in a car during winter, has the potential of placing a person in a serious survival situation. A stumble over a hidden rock on a snow-covered path could cause a fall and subsequent injury. Accidentally going off the road on/in any vehicle could end at the bottom of a ravine, as light fades and it becomes more and more difficult to distinguish depth and direction.

Now imagine, for instance, the loss of engine power 12 minutes after takeoff on your 30-minute "short jaunt." You are out in the middle of open prairie or huge farmsteads. You see a few houses, but you know if your landing is okay, you will have at least a mile to walk in an area you are not familiar with, in temperatures below freezing, across fields with snowdrifts waist deep. It is getting late and the daylight is fading. Without proper preparation, this situation – even without injuries – can be critical to your survival. That is why it is important to plan before you depart and make sure you have the proper clothing and gear to help you survive in the elements in an emergency situation.

It is easy to buy pre-made survival kits from outdoor stores, hunting supply stores, and online stores. Every kit should be tailored to the user and for the conditions the user expects to encounter.

If you are unsure what to include in a survival kit, check out the information and lists provided by the following three information sources:

1. http://www.preparedpilot.com/Survival-Kits/Contents.htm
2. http://www.redcross.org/services/hss/lifeline/fakit.html
3. http://www.fema.gov/plan/prepare/supplykit.shtm

This is not an inclusive list and in no way implies any endorsement or preference. The information and links included here are simply to

assist the reader in tracking down good information and guidance, and is provided in no particular order.

Now that you have plans for your kit(s), make sure you know how to use every item you include in your kit. Take time to go through your kit(s) and be familiar with what is contained in each, as well as where in the kits items are located. That way in the stress of a survival situation, you aren't carrying dead weight for no particular reason, and you can find what you need, even in the dark.

Proper preplanning is key to your safety, whether driving, flying, or in a survival situation. Now is the perfect time to KIT UP! ❑

Use of Unmanned Aerial Vehicles Expands... Pilots Beware!

One important and rapidly growing facet of the aviation industry today is Unmanned Aerial Vehicles (UAVs). In the past 10 years, UAVs and their associated systems have proliferated throughout the military and intelligence services around the world. Additionally, a number of local law enforcement agencies around the nation have begun using Unmanned Aircraft Systems (UAS) for a variety of enforcement jobs.

UAVs have proven their value and flexibility throughout the military environment, and also in many parts of the domestic environment. While some UAVs are currently being used by local (as well as federal) law enforcement, some are also operational with weather, search and rescue, and even agricultural agencies. The point is, these unique aircraft will perhaps soon be regularly operating in civilian airspace, along with manned traffic.

There are already several schools around the country, including the University of North Dakota, that have well developed training programs for pilots and systems personnel to learn to operate and fly UAVs. The schools are training pilots and systems operators on a variety of UAVs for an equal variety of UAV missions. Thus, the future has arrived and aviators need to be alert to the potential changes in air traffic, especially around airports.

In a document titled, *The U.S. Air Force Remotely Piloted Aircraft and Unmanned Aerial Vehicle Strategic Vision 2005,* (page 22-23), one can already find the military view of the future of UAVs and the need to integrate them into shared airspace. The report states: "Unmanned systems must be robustly integrated with manned and space systems. They must also be integrated with other unmanned systems, including ground and sea-based systems. To provide maximum effectiveness, RPAs (Remotely Piloted Aircraft) and UAVs must conduct operations seamlessly and concurrently with manned aircraft, in shared airspace…"

USAF Photo

Unmanned Aerial Vehicles (UAVs) may be landing at civilian airports in the not-too-distant future.

Bear in mind that UAVs can vary in size and weight from (literally) small bird-sized devices, up to Citation jet-sized aircraft like the "Predator," that carry live armament. The tiny UAVs will operate between 500 and 1,000 feet AGL, while UAVs like the Predator will operate likely between 10,000 and 18,000 feet AGL. Some of these aircraft are small enough to be hand or vehicle-launched, while other larger UAVs will actually taxi and takeoff from airfields under the control of pilots that may be located in another state.

While the UAV pilot's actual location may not be an issue, what is a concern is what they can see when flying, especially when near or in an airport traffic pattern. This is not an implication that there are or will be UAVs in your traffic pattern, but as use of these systems grows, the likelihood of seeing one also grows. And if a UAV needs to be landed at a local airfield, it raises concern about the UAV pilot's ability to see and avoid other traffic, especially while handling an emergency.

Clearly, one of the most important differences between manned aviation and UAVs is the ability to see-and-avoid other air traffic. While the technology of on-board systems is improving as time goes by, there is still reason to be aware that UAVs as autonomous systems or man-controlled systems may not have the field of vision and alertness capability that an in-craft pilot will have.

Thus, it remains critically important for human aviators in the flying cockpits to keep their heads on a swivel at all times during flight. This helps to maintain the best possible level of awareness of encroaching or merging air traffic, whether manned or unmanned, especially near an airport. Until the technology of "see and avoid" can be greatly improved for UAVs, the head on a swivel will still be one of the prime elements in flying safety.

***Update: As this article was headed to press, several late breaking articles were released by various news/information sources. Limiting discussion to only two new releases, we find that a college in Dayton, Ohio, has sought an exemption from the FAA to fly UAVs in local airspace as a way to facilitate training of UAS controllers. In the second article, it is stated that the FAA is very likely "to allow the integration of small UAVs into the National Airspace System by 2013," according to the National Defense Industrial Association (NDIA).*

CONTINUED ON PAGE 62

Aeronautics Report

Wisconsin Bureau of Aeronautics
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Fuel Conserving Techniques

by Jeffery Taylor
WisDOT Bureau of Aeronautics


Jeff Taylor

At the Wisconsin Department of Transportation, we are committed to transportation safety, along with common sense efforts to enhance and preserve environmental quality. With the recent spike in fuel costs, pilots everywhere are looking for ways to reduce their aircraft fuel consumption. You may think following proper leaning practices is your only tool. However, evaluating all of your operational techniques and maintenance practices, along with careful record keeping, can significantly reduce operating costs and extend the operating range of any airplane.

The First Step – Maintenance

Aircraft Rigging – The overriding goal is to get the aircraft to fly as close as possible to the way it was designed. Regardless of the size, class or age of the aircraft you fly, it is likely a five to 10 knot airspeed loss has crept into your aircraft.

We can learn from the airlines, which over the years, have learned to carefully monitor airplane performance in an effort to maintain operational efficiency. Through detailed record keeping, airlines have found that performance of a new aircraft deteriorates at a very predictable rate as misrigging, pressurization leaks, airframe dents, and insidious weight increases contribute to drag.

Writing down true airspeed, fuel flow, fuel consumption – and other flight parameters during every flight – can tip you off to when your aircraft may be out of rig.

Airframe Drag – This is the real enemy of fuel conservation. Checking the rigging of your aircraft is an essential step in conserving fuel. On a regular basis, check passenger and cargo doors, landing gear doors, the wings, and cowl flaps for misalignment and adjust as necessary. Trim tabs should also be checked against cockpit trim position indicators to ensure accurate trim adjustments. If any one of these items is out of alignment, it will create additional drag.


There's no easier way to cut down on drag and improve fuel efficiency than to remove dirt and bugs from aircraft surfaces after every flight, and eliminate unnecessary weight. Every pound of weight requires an additional pound of lift, increasing the amount of induced drag and fuel consumption.

Aligning mis-rigged surfaces is extremely important. If left out of alignment, you may be compensating with control inputs that can further compound the increase in drag.

Cockpit Instrumentation – In order to operate your aircraft efficiently, it is important to make sure your cockpit instruments are properly calibrated to provide accurate information. Engine instruments are among the most important. Precise settings require an accurate tachometer or manifold gauge. The exhaust gas temperature (EGT) gauge will help you lean the engine more precisely.

Airframe Cleanliness – Airframe cleanliness is often taken for granted. It is much more than a cosmetic nicety. Dirt and bugs can accumulate on the wings and act just like frost by reducing the kinetic energy of the boundary layer and increasing drag. It is a good practice, especially in the summer, to wipe down the leading edges after every flight. You will minimize drag and find that cleaning is much easier when done regularly.

Weight Reduction – Reducing the weight of your aircraft can be a quick, easy method to improve efficiency. Remember that every pound of weight requires an additional pound of lift, increasing the amount of induced drag. Go through your aircraft and refer to your Pilot Operating Handbook (POH) to decide if there is equipment or furnishings that are no longer necessary. As one pilot told me, "Pilots are like their airplanes…they

get heavier with age."

Drag Producers – Check your airplane carefully for unnecessary drag producers. After checking with the manufacturer and the FAA, are there accessories attached to your aircraft you can do without, such as steps, assist handles or doorstops? Also, if you have added new and improved avionics, take a hard look at the number and type of antennas still on your aircraft.

Proper Engine Maintenance – Drag reduction may be the most productive area in a fuel conservation program, but engine maintenance can also produce significant benefits. It is important to check spark plugs, magnetos and fuel injectors frequently. If the engine is fuel injected, make sure the injectors are within close tolerance so it can run at optimal lean settings. Otherwise, the engine can only be leaned for the one or two leanest cylinders.

The Second Step – Aircraft Operation

Preflight Planning – Good preflight planning can result in considerable fuel savings. Time invested on the ground in careful flight planning will avoid needless delays on the ramp, unnecessary fuel stops and other situations that can waste fuel and time. Spend some time with your aircraft's POH reviewing the performance charts for your aircraft and determine its specific range, which is the aeronautical equivalent to an automobile's miles per gallon. Dividing the miles flown by the amount of fuel used, or airspeed by the fuel flow per hour, can calculate an aircraft's specific range. Essentially, specific range is distance traveled per unit of fuel used. If, for example, you fly 600 miles and burn 30 gallons of fuel, your specific range is 20 nautical miles per gallon.

After determining a zero-wind altitude, calculate the specific range using your estimated groundspeed. This will give you the best altitude for current conditions. The advantage of using specific range is how it relates distance to fuel used for each flight segment, be it during climb, cruise or descent.

In still air, specific range will increase slightly with altitude up to about 7,000 feet at a given power setting with a normally aspirated engine. Tailwinds improve specific range and are very inviting, but be sure to balance the groundspeed benefits of high-altitude winds against the extra time consumed in climbing to reach them.

In a headwind situation, the break-even point on wind is about one percent of the indicated airspeed (IAS) per 1,000 feet. For example, at an IAS of 100 knots, a 10-knot headwind at ground level is as much a detriment to specific range as a 15 knot headwind at 5,000 feet. In other words, you are just as well off at 5,000 feet facing a 15-knot headwind, as at ground level looking at a 10-knot headwind. That is because true airspeed tends to increase one percent per 1,000 feet, up to the maximum altitude at which that power setting can be maintained.

When choosing a cruise altitude, the total distance of the trip is a critical factor. If your climb to altitude with a normally aspirated engine will require more than 15 percent of the total enroute time, you are climbing too high. For a turbocharged engine, 25 percent is a good rule of thumb. Remember, these are general estimates. Go through the numbers for your particular aircraft, over the different stages of flight, to fine-tune your operations.

Fuel conservation begins and ends with understanding your aircraft. A thorough understanding of your POH will become a baseline from which to measure the effectiveness of your operational changes. Careful record keeping will provide you a better understanding of your fuel-saving efforts and avoid seat-of-the-pants guesses. This will require dedication and attention to detail; however, inefficient flying, and the resulting higher fuel costs, can be a real drag. ❑

2012 International Aviation Art Contest

by Nicole Wiessinger

The 2012 International Aviation Art Contest is underway! Wisconsin is holding the state-level competition prior to the national and international events. All children between the ages of seven and 17 are invited and encouraged to participate.

This year's theme is "Silent Flight." It celebrates and honors air travel that is powered by wind alone. Examples include a kite, glider or paraglider.

The entries are initially submitted to the Wisconsin Department of Transportation's Bureau of Aeronautics for statewide judging. The top three entries in each age bracket advance to the national competition, but also receive the following awards:

First Place: $100 art supply gift certificate, or an airplane ride for two.

Second Place: $75 art supply gift certificate.

Third Place: $50 art supply gift certificate.

National first, second and third place winners receive certificates, ribbons, a framed reproduction of their artwork, and advance to the international competition. Qualifiers compete for certificates, and gold, silver or bronze medals.

The Wisconsin Department of Transportation is proud of its national and international winners over the years. This year, the Bureau of Aeronautics is hoping to double the number of participants in an effort to encourage young artists to become more familiar with aviation, science and engineering.

Entries must be postmarked to the Wisconsin Department of Transportation's Bureau of Aeronautics by Friday, January 12, 2012. For an electronic copy of the brochure, please visit:

http://www.dot.wisconsin.gov/travel/air/art.htm ❑

The Future of Collegiate Aviation

by Dr. Patrick Mattson
Professor Emeritus
& Dr. Jeffrey Johnson
Professor
St. Cloud State University-Aviation


Dr. Patrick Mattson

The University Aviation Association (UAA) membership and program accreditation teams from the Aviation Accreditation Board International (AABI) have worked hard to raise the profile of the collegiate aviation domain. Has collegiate aviation made any significant strides in combating a negative public perception and misunderstanding during the last 40 years? Is there a new trend to close high-profile collegiate aviation programs, such as St. Cloud State University, University of Illinois-Champaign, and Daniel Webster College? Unfortunately, there is lingering negative public perception, which is still problematic, even though there have been many new or expanded collegiate aviation programs nationwide since the fall of 2000.

During the last several years, aviation higher education programs in Minnesota alone have been closed at an alarming rate. The aircraft maintenance program at Minneapolis Community & Technical College, and the associate's degree programs at Inver Hills Community College and Anoka Ramsey Community College have closed, in addition to St. Cloud State University's baccalaureate degree program. In the spring of 2010, the aviation program at Mankato was closed, however, it has won a temporary reprieve.

It is possible that Minnesota will no longer have any baccalaureate degree aviation programs left to serve the upper Midwest population and foster economic growth in light of projected personnel.

At best, this problem would force Minnesota to hire newly minted aviation graduates from out of state. At worse, it could disrupt the Minnesota air transportation industries, and the public's ability to safely use air transportation with any degree of reliability.

What are some of the underlying problems leading to the demise of some aviation programs?

At first glance, the answer may seem exclusively monetary in nature. However, collegiate aviation seemingly endures a perpetual perception problem viewed by traditional academicians and the public at large.

For example, many traditional academicians believe that collegiate aviation programs only train students for a skill (e.g., fly or fix airplanes), and therefore, aviation only belongs in a trade school. Perhaps this questionable argument could also be made for the Bachelor of Science in Nursing (BSN), or Computer Science, as well. The reality is that many employers, including those in the medical and aviation fields, require a bachelor's degree for entry-level positions that provide some evidence that the new graduate has an integrated skill set. Aviation is not just stick and rudder or non-radar control anymore. A balanced skill set, including decision-making and critical thinking capabilities, is needed.

On May 25, 1961, President John F. Kennedy declared that we should send an American to the moon, and a younger generation got excited about aviation and aerospace. That spark is needed again which we think is being manifested in the current Science, Technology, Engineering & Mathematics *(STEM) education* debate. We have had discussions over the years with K-12 teachers who would like to incorporate STEM lessons into their classes. They are often surprised to hear that free or low-cost materials are available to get students excited about math and science. (See Fly to Learn www.flytolearn.com and NASA http://quest.nasa.gov/index.html.)

One of the newest organizations taking a role in training reform is the Society of Aviation and Flight Educators (SAFE). Their recently released progress report speaks to the success of training reform dependent on collaboration and grassroots implementation (http://www.pilottrainingreform.org/news/). What happens to all of this effort if we get kids excited about an aviation career, but there are few options at the next level?

Quite possibly the greatest challenge with collegiate aviation perception lies with the "public." Communicating the simple understanding that collegiate aviation actually even exists in the eyes of the public, and its importance to their safety, seems to be an ongoing challenge. ❑

Blackhawk Tech A&P Program Suspended!

JANESVILLE, WIS. - The Blackhawk Technical College (BTC) Airframe and Powerplant (A&P) Technician Program has been suspended for at least one year following the 2012 summer semester. Approximately 70 supporters of the program attended the school board meeting held November 16, 2011 at BTC's Beloit campus.

Newly appointed BTC President Thomas Eckert, who proposed closing the program, chaired the meeting. Opponents to the proposal included many former Blackhawk students who have gone on to successful careers in aircraft maintenance. They were

concerned not only with the decision, but how quickly that decision was made and without dialogue. Others in attendance were representatives of major corporations in the area, including ABC Supply in Janesville, and Emery Air in Rockford, Illinois, which hire BTC graduates to maintain their aircraft.

Chris Anderson, a corporate pilot out of Milwaukee, Wis., was among those in attendance. Anderson has two brothers who graduated from the program and feels that losing it is a loss for the school, community, students, and aviation community.

The president of the Aircraft Owners & Pilots Association, Craig Fuller, wrote a strong letter in support of the program, describing the nation's need for well-trained aircraft technicians, especially with so many technicians retiring. Fuller even offered to help publicize the program to AOPA's 400,000 members. The president of the Experimental Aircraft Association, Rod Hightower, also expressed his concern.

The BTC A&P program started in 1949 with donated equipment and materials received from the War Assets Program and grew from there. The school did very little to promote the program in recent years and still had increased enrollment, in part due to the lagging economy in the Janesville, Wisconsin community, and the growing demand for aircraft technicians. Still, the program was said to have a budget shortfall of $369,000, not unlike any other state subsidized college program. The board also eliminated the school's Leadership Program.

Dave Weiman

Archie Henkelmann behind the controls of the "Wright Flyer" replica in which he and over 500 Blackhawk Technical College students, faculty and EAA members built from 1965-78. Henkelmann was chief instructor at the school at the time. The aircraft is now on display at the EAA AirVenture Museum.

Those who visit the Experimental Aircraft Association (EAA) AirVenture Museum in Oshkosh, Wisconsin and see the "Wright Flyer" replica on display, can think of a great A&P program that was. More than 500 BTC students and EAA members built the historic replica over a 13-year period under the direction of then BTC A&P chief instructor, Archie Henkelmann of Janesville. The project was completed for the 75th anniversary of the Wright brothers' historic flight, which took place on December 17, 1903 at Kitty Hawk, North Carolina, with Orville Wright at the controls.

A commemoration open house was held at the EAA AirVenture Museum on June 4, 1978, and also at the BTC Aviation Campus located at Southern Wisconsin Regional Airport (JVL). ❑

Eastern Michigan University To Meet Pilot Demand

LANSING, MICH. – When some aviation campuses are closing, others are realizing the need for expanding or creating new flight training programs. Such is the case at Eastern Michigan University (EMU) where they are establishing a new Eagle Flight Center at Capital Region International Airport. EMU's college of technology will expand its aviation flight training program, allowing students to get a four-year degree.

Eastern Michigan University officials say they are working with Lansing Community College to allow students of its discontinued aviation program to complete their education with EMU.

With 23,000 pilots needed per year worldwide, the administration at EMU will be filling a growing gap in training in the U.S. Ten students have already enrolled in the program, and they are expecting many more once the word gets out.

Eagle Flight Center will also provide flight training without credit and without tuition costs, to any local resident. ❑

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Demo Flight Turns Into Lifelong Career For Dee Price Of Des Moines Flying Service

DES MOINES, IOWA – As a little girl, Dee Price, Vice President of Sales Administration at Des Moines Flying Service (DMFS) and Hondajet Midwest at Des Moines International Airport, always thought she wanted to learn to fly. She thought she would like to fly helicopters because "they were more safe," but later realized how safe fixed-wing aircraft were as well.

After graduating from Osceola High School, Osceola, Iowa, in 1949, Price worked for Iowa Southern Utilities Company until she got married. She became a stay-at-home mom when her son, Steven, was born in 1951, and her daughter, Sue, in 1953.

In January 1957, Price took a position as a clerk with a state representative in the Iowa Legislature, a short-time job since the legislature met every other year from January until late April. Later when both of her children were in school, she started working full-time for Brown & Bigelow from 1957 to 1961, and then for the Iowa Independent Telephone Association in 1961 and 1962.

In the summer of 1962, Price had the opportunity to take a demonstration flight in a Piper Cherokee 160 with flight instructor, Willis Faux, at Des Moines Flying Service. "Willis had the ability to make you feel that you were actually flying the airplane during the demo, and I was bitten by the 'flying

Dee Price

bug,'" said Price. Price soon started taking flying lessons, flying mostly in the Piper Colt (PA-22-108) and the Piper Tri-Pacer (PA-22-150) after she got off work.

After about two weeks of lessons, a position opened up at Des Moines Flying Service working the front desk, and directly with the owner, Howard Gregory. She applied and did not get the job, at least right away. At the time, Gregory was on one of his trans-Atlantic flights to Europe, delivering an Aztec. When he returned from the trip, he found that no one had been hired to fill the position, and Price was called at home one evening and asked to again come in for an interview.

"The interview was rather unforgettable," said Price. Gregory asked Price if she could type, and she could, but he insisted on her taking a typing test. She passed and started working at Des Moines Flying Service the day after Labor Day on September 4, 1962. At the end of Price's first day on the job, she went flying in one of the company's Tri-Pacers, and soloed for the first time.

As time went on, Price became more involved in the company, helping Howard Gregory with the record-keeping on airplanes ordered, writing letters, and making phone calls to their dealers. DMFS was a Piper distributor at that time, and had more than 20 dealers and flight centers.

In 1974, DMFS became a Piper Cheyenne sales center and Price got very involved in every aspect of aircraft sales, including ordering, submitting customer specifications to the factory, pricing out avionics and other options, preparing purchase agreements, and often making trips to the factory in Lakeland, Florida. Those duties continued on until 1984 when Piper ceased building the Cheyenne line.

In 1997, DMFS became a Pilatus dealer and Price's duties were much the same as with the Cheyenne.

In 2008, DMFS became a HondaJet dealer and created the company "HondaJet Midwest," covering 10 Midwestern states. Price has been doing much of the same sales administration for this aircraft as well.

Although Price will retire on December 31, 2011, after 49 years on the job, she looks forward to sharing in the excitement of the company's first HondaJet delivery, expected in 2013. ❑

Mayor Supports Local Airport

BARABOO, WIS. – All too often, local politicians do not support their local airport, claiming that airplanes based there are only toys for rich people. But not so in Baraboo, Wisconsin, where Mayor Patrick Liston says that the airport is a necessity in bringing people and business to the community.

In 2010, Baraboo-Wisconsin Dells Municipal Airport (KDLL) got its main runway lengthened to 5,010 feet to support local businesses, and encourage new ones to locate there. Proponents hope to extend the runway to 6,000 feet to accommodate even more traffic. There is also a 2,708 x 100 ft. turf runway. Height limitations ordinances are in place near the airport to prevent future conflicts.

There is an average of 93 takeoffs and landings per day, which includes flights to support the construction of a $45 million mall, recently. Baraboo is also home to the Ringling Brothers Circus World Museum, and the Ho-Chunk Casino is located immediately adjacent to the airport in Wisconsin Dells. The airport was home for Cirrus Aircraft Corporation in the 1980s until the company moved to Duluth, Minnesota in the 1990s. The Baraboo-Wisconsin Dells Airport has a total economic impact of $9.5 million per year. ❑

CALENDAR

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* Indicates any new or updated calendar listings since the previous issue.

JANUARY 2012

19-20 **Ypsilanti, Mich** - Professional Aviation Maintenance Association (PAMA) National Conference & Maintenance Symposium at the Eastern Michigan University near Detroit in conjunction with the Great Lakes Aviation Conference. www.GreatLakesAviationConference.com/pama. 517-548-1200.

20-21 **Ypsilanti, Michigan** - Great Lakes Aviation Conference at the Eastern Michigan University - Student Center. www.GreatLakesAviationConference.com/pama. 517-548-1200.

FEBRUARY 2012

7* **St. Paul, Minn.** - Minnesota Aviation Day At The Capitol. Anyone actively involved in aviation in Minnesota, and who believes in the importance of their local airport, is encouraged to participate. 9am breakfast kickoff & box lunch at Noon in the Capitol. Hosted by MATA, MCOA & MBAA. Registration deadline January 24. To attend or for additional information, contact Gordon Hoff, Executive Director, MBAA at gordon.hoff@comcast.net or call 651-398-4649.

12 **Mondovi (WS69), Wis.** - Log Cabin Airport Annual Ski Fly-In starting at 10am with Chili, Hot Dogs & Refreshments at Noon. logcabinairport@tcc.coop

25 **Stevens Point, Wis.** - Mechanics Refresher and Inspection Authorization (IA) Training Seminar at the Holiday Inn Hotel & Convention Center. www.dot.wisconsin.gov/news/events/air/aviation-mechanic-seminar.htm.

26 **Warroad (KRRT), Minn.** - Ski Plane Fly-In & Breakfast. Ski Planes land on the Warroad River, wheel planes at the Warroad Airport (KRRT). Shuttle service available. 100LL available on river 8 a.m. - 12 noon. 218/386-1818 or 218/386-2098.

MARCH 2012

4-6* **Bismarck, N.D.** - Upper Midwest Aviation Symposium. Aviation topics for mechanics, pilots and airport managers at the Ramkota Inn. 701-355-1800.

18-19 **Brooklyn Center, Minnesota** - Minnesota Aviation Trades Association (MATA) Conference at the Earle Brown Heritage Center - 6155 Earle Brown Drive. Email or call Sara Wiplinger at swiplinger@wipairie.com; 651-209-7168.

19-20 **Brooklyn Center, Minnesota** - Minnesota Aviation Maintenance Technician Conference at the Earle Brown Heritage Center - 6155 Earle Brown Drive. Contact person is Janese Thatcher at 651-234-7183 or janese.thatcher@state.mn.us.

27-4/1 **Lakeland, Fla.** - Sun 'n Fun Fly-In & Expo. www.sun-n-fun.org

APRIL 2012

21* **Saint Cloud (STC), Minn.** - STC Airport Day from 9am-1pm. Fly-In & Kids Activities. Aircraft Displays & Exhibitors. mije0804@stcloudstate.edu

25-26 **West Des Moines, Iowa** - Iowa Aviation Conference at the Sheraton West Des Moines Hotel. For more info www.iowaairports.org/conference/index.htm

28 **Bloomington, Minn.** - Minnesota Aviation Hall of Fame at the Ramada Mall of America Hotel. mnaviationhalloffame.org.

MAY 2012

4-6 **Brainerd, Minn.** - 2012 Minnesota Seaplane Pilots Safety Seminar & Fly-In. www.mnseaplanes.org

7-9 **Wisconsin Dells, Wis.** - 57th Annual Wisconsin Aviation Conference at the Chula Vista Resort. www.wiama.org

22-23* **St. Charles, Ill.** - Illinois Aviation Conference at Pheasant Run Resort. Opening hangar party will be hosted by the DuPage Airport Authority. The airport is adjacent to the resort. 217-528-5230

JUNE 2012

2-3 **Blaine (ANE), Minn.** - Discover Aviation Days at the Anoka County-Blaine Airport. www.DiscoverAviationDays.org or Info@DiscoverAviationDays.org. 763-568-6072.

6* **Eau Claire, Wis.** - 3rd Annual Youth Aviation Adventure (YAA) - 9am-2pm. At the Chippewa Valley Regional Airport. Visit web site by entering YAA Eau Claire in the Google search box.

JULY 2012

6-7* **Phillips (PBH), Wis.** - Aerobatic Show & Breakfast. **See Ad On Pge 48**

23-29 **Oshkosh (OSH), Wis..** - EAA AirVenture 2012. www.airventure.org

AUGUST 2012

15-19 **Miminiska, Ontario Canada** - Canadian Fishing Fly-Out at Miminiska Lodge. 196 nm north of Thunder Bay, Ontario. Contact Joe Pichey 866-984-1705. joe@wildernessnorth.com

OCTOBER 2012

11-13 **Palm Springs, Calif.** - AOPA Aviation Summit at the Palm Springs Convention Center. www.aopa.org

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1978 Piper Aztec F – Ice, Bendix RDR-150 radar, HSI, Altimatic X autopilot, 9100 TT, 115/1210 SMOH, December 2010 annual, Tanis heaters. ..... **$79,500/WILL TRADE!**

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General Aviation Industry Prepares For An Unleaded Future

WASHINGTON, D.C. – The Environmental Protection Agency (EPA) has formally begun the regulatory process required by the Clean Air Act that may ultimately result in standards mandating the industry's transition to unleaded aviation gasoline (avgas). The EPA has issued an advance notice of proposed rulemaking (ANPR) which is a key opportunity for the general aviation (GA) community to provide comment regarding this possible new environmental standard and into the development of a plan for identifying, evaluating, and ultimately transitioning to an unleaded fuel. This is particularly important given the technical complexity and safety implications of removing lead from aviation gasoline, since there is not a high-octane replacement unleaded avgas available today that meets the requirements of the entire GA fleet.

In the ANPR, the EPA recognized the complexity involved in identifying and safely transitioning to an alternative gasoline, stating, "Converting in-use aircraft/engines to operate on unleaded aviation gasoline would be a significant logistical challenge, and in some cases a technical challenge as well."

The agency also acknowledged that a joint effort will be critical in the likely case that engine modifications will need to be developed and certified. The EPA continued, "Given the potentially large number of affected aircraft and the potential complexities involved, a program affecting in-use aircraft engines would need careful consideration by both EPA and FAA and the two agencies would need to work together in considering any potential program affecting the in-use fleet."

The Aircraft Owners and Pilots Association (AOPA), Experimental Aircraft Association (EAA), General Aviation Manufacturers Association (GAMA), National Air Transportation Association (NATA), and National Business Aviation Association (NBAA) have devoted more than 20 years of research and development to identifying a viable alternative to the 100 "low lead" avgas formulation used today by most piston-powered aircraft. The industry stakeholders look forward to continuing their work with the EPA and the FAA on establishing a realistic standard to reduce lead emissions from GA aircraft along a transition timeline which balances environmental benefit with aviation safety, technical feasibility and economic impact upon the GA industry.

View the ANPR at: http://www.epa.gov/otaq/aviation.htm. ❑

Piper Aircraft Indefinitely Suspends Light Jet Development

VERO BEACH, FLA. (October 24, 2011) – Piper Aircraft Inc. has indefinitely suspended further development of the "Piper Altaire" business jet following a review to align the company's business goals with the light jet market outlook, investment strategies and overall economic forecasts.

Piper Interim President and CEO Simon Caldecott said that while the Altaire program was on schedule, on budget, and hitting aircraft performance targets, planned development costs had risen above

Piper Altaire

the point that were recoverable under foreseeable light jet market projections.

Going forward, Piper will step up product improvements for its turboprop and piston-powered lines, and initiate third-party engineering and manufacturing services to preserve as much of its talent pool and as many jobs as possible.

Among the enterprise initiatives underway is Design by Piper. This third-party service provider will perform proprietary engineering and technical functions for other companies to take advantage of the high level and wide range of some of the talent that had been assigned to the Altaire development program.

Additionally, Precision by Piper, another third-party service provider, will leverage the company's precision manufacturing expertise and recent upgrades to its manufacturing capabilities, which were completed in anticipation of Altaire production. ❑

Unmanned Aerial Vehicles From Page 53

These UAVs would be in the 30-55 pound class of aerial vehicles. The article went on to say: "In April (2011), the Army demonstrated for the FAA a sense-and-avoid system using the MQ-1C Gray Eagle at El Mirage, Calif., for over 11 hours, according to the NDIA." It's just a matter of time!

Sources & Resources

- *Policy Options For Unmanned Aircraft Systems,* Congressional Budget Office, June 2011.
- *Integrating Department of Defense Unmanned Aerial Systems Into The National Airspace Structure* (master's thesis) by Scott W. Walker, U.S. Army Command and General Staff College, June 2010.
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- *The U.S. Air Force Remotely Piloted Aircraft & Unmanned Aerial Vehicle Strategic Vision 2005*. ❑

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