

# MIDWEST FLYER

**MAGAZINE**

FEBRUARY/MARCH 2010



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## **Dear Fellow Pilots:**

2008 was the first year I participated in the "Midwest Flyer Canadian Fishing Fly-Out." My two sons, son-in-law and a good friend of mine went also, so it became a wonderful family trip.

All of us had a great time and agreed we needed to make the trip a regular time together. We enjoyed the fishing, the flying and the camaraderie with a great bunch of guys.

Spending time with other pilots makes the trip especially fun and interesting. The trip is well organized by *Midwest Flyer Magazine*, and one of the reasons it is so enjoyable. By the way, the food is great, too! I'm looking forward to just as much fun in 2010.

**Bill Maliszewski**  
**Pilot & Farmer**  
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**ON THE COVER:** The DAHER-SOCATA TBM 850 is considered to be the fastest single-engine turboprop in the world. Read about a Midwest pilot who decided flying his TBM 850 was faster, more efficient, and more fun than taking the airlines to Cartagena, Colombia, despite having to fly over 1,080 nm of ocean, beginning on page 14. Following that story is an article on what to do if you have to ditch in water, an article on an air-sea rescue by the Civil Air Patrol during World War II, and information on the new 406-MHz Emergency Locator Transmitter (ELT) and Personal Locator Beacon (PLB). *DAHER-SOCATA Photo*



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# Flight Service Specialists Union Concerned With Flight Safety As Lockheed Martin Consolidates Even More Stations... *How Concerned Should We Be?*

by Dave Weiman

**A**nother round of changes has taken place at Flight Service Stations around the country, and the International Association of Machinists and Aerospace Workers (IAM) is not happy about it. While we are not opposed to cutting government waste and using technology to improve efficiencies, we are concern with briefers who are responsible for regions of the country they are not familiar with and who lack practical flight experience. Gone are the days of the local Flight Service Station and the pilots that manned them.

Regardless of any desire to preserve flying the way it used to be, the consolidation of Flight Service Stations may be a natural progression of how we will obtain our services now and in the future.

Today, more and more pilots have turned to "self briefing" and filing flight plans online, drastically reducing



the need for Flight Service Station services. So read what IAM is saying, read what Lockheed Martin is saying, and then decide for yourself if consolidation of Flight Service Stations is or is not the way of the future.

At the end of this editorial, you will be encouraged to state your position on the issue.

In October of 2005, the Federal Aviation Administration (FAA) outsourced its flight services in the United States (except for Alaska) to Lockheed Martin Corporation. At the time of the outsourcing, there were 58 flight service stations outside of Alaska, employing over 2,000 specialists. By August of 2007, with FAA approval, Lockheed Martin had closed 38 stations. A further constriction of the system took place in February of 2009 when the number of stations was reduced to 13, but the company wasn't done yet. Effective February 1, 2010, all but six (6) stations have now been closed.

IAM says that the FAA is putting the safety of pilots at risk again by agreeing to the further consolidation of services provided to general aviation. The six remaining

**CONTINUED ON PAGE 8**



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Lockheed Martin Flight Service Station specialists in Fort Worth, Texas, are responsible for providing information to pilots in Minnesota, North Dakota, South Dakota, Iowa, Missouri, Kansas, Arkansas, Texas, Oklahoma, Louisiana, and southern Illinois. Princeton, Minnesota Flight Service now covers Wisconsin, Michigan, Indiana, Ohio, Kentucky, Tennessee, Alabama, Mississippi, and northern Illinois.

## DIALOGUE FROM PAGE 5

stations open include three hub facilities located in Prescott, Arizona; Fort Worth, Texas; and Leesburg, Va., along with three continuing sites in Princeton, Minn.; Raleigh-Durham, N.C.; and Miami, Fla. Additionally, Lockheed Martin eliminated nearly 130 briefing specialists from a system that has already shrunk to less than 800.

IAM says that this decision is “short-sighted,” and putting pilots at risk while degrading service. They say there is a direct correlation between the consolidation of the system and an increase in the number of operational errors and deviations, which IAM says are on the increase.

The union says that the latest decision to close over half of the existing facilities has resulted in a reorganization of work such that the specialists in Princeton, Minnesota, no longer brief pilots in Minnesota, North Dakota, South Dakota, or Iowa, as they did.

Twenty-seven of the 33 specialists at Princeton have over 20 years of flight service experience, and nearly all of it has been in the aforementioned states. These specialists have an intimate and personal knowledge of the region. Instead, pilots now receive services from other locations not as familiar with the region. As pilots and specialists get farther apart, safety may suffer, says IAM.

*Midwest Flyer Magazine* contacted Lockheed Martin in Rockville, Maryland, to confirm the closures, and to have the company respond to the concerns of the union.

Lockheed Martin Flight Services spokesperson, Jan Gottfredsen, who is not a pilot and does not have experience as a flight service station briefer, confirmed that on February 1, 2010, Lockheed Martin ended flight service operations in Columbia, Mo.; Honolulu, Hawaii; Kankakee, Ill.; Lansing, Mich.; Nashville, Tenn.; Seattle, Wash.; and St. Petersburg, Fla.

**CONTINUED ON PAGE 10**



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## DIALOGUE FROM PAGE 8

She said that the operational efficiencies gained from Lockheed Martin's networked flight service system (which has been operational since October 2005), current traffic patterns, and a decline in the number of general aviation flights throughout the industry, were factors in Lockheed Martin's decision to close these seven facilities.

Gottfredsen: "Lockheed Martin's networked system is transparent to pilots, and the operational performance is a constant, regardless of the time of day or a pilot's location. When a pilot calls 1-800-WxBRIEF, he or she receives the preflight and in-flight service required for a safe flight."

Gottfredsen: "The current operational efficiencies gained from the introduction of a networked system have enhanced its ability to provide services from any location. Its technology and operational

service delivery model enables the continuing sites to provide the same level of service from fewer facilities. A nationwide system allows calls to be routed to specialists certified in a specific area of knowledge regardless of physical location. Because of the number of employees who transferred to a hub site from heritage sites, Lockheed Martin has a strong mix of experience levels at our hubs."

Gottfredsen: "Lockheed Martin Flight Services provides support to the pilot community based on a certified *area of responsibility* (AOR). This means that when a pilot calls Lockheed Martin Flight Services and identifies the area he or she needs, the call will be routed to a briefer who is certified for that specific AOR. All hubs are staffed with the appropriate number of specialists certified to assist all the AORs in the U.S. and Puerto Rico."

Gottfredsen: "Regarding the future, the facility footprint associated

with Lockheed Martin Flight Service operations will continue to be monitored and evaluated to optimize staffing levels and the number of facilities for the required traffic demands."

Gottfredsen: "Princeton Flight Service is one of our three non-hub sites that will continue to operate. Effective January 18, Princeton operations have been handling preflight services for the Great Lakes AOR and the Nashville AOR. Wisconsin, Michigan, Indiana and Ohio are states in the Great Lakes AOR. Illinois is split into northern and southern regions. The Great Lakes AOR covers the northern portion. Kentucky, Tennessee, Alabama and Mississippi are Nashville AOR states."

We asked Gottfredsen to comment on our proposal to "*streamline customs and flight service to enhance security, and cut costs*" (August/September 2009, "Dialogue,"



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www.midwestflyer.com), and encouraged Lockheed Martin to take a leadership role in improving the system.

Gottfredsen: "As an FAA contractor, Lockheed Martin does not have direct input to these rules and procedures. If a pilot or organization desires changes or further clarification of these rules, individual interaction with the U.S. Department of Homeland Security (DHS) or the U.S. Customs and Border Protection (CBP) as a national airspace user is the appropriate step to take." Gottfredsen failed to correlate that the Federal Aviation Administration and Lockheed Martin together comprise 50 percent of the solution to this dilemma.

The International Association of Machinists and Aerospace Workers is urging pilots to contact their Congressmen and share their concerns about safety and service.... that pilots value experience and local expertise....that pilots do not support a further consolidation of services that will put their safety at risk. IAM wants enough specialists and facilities to continue to make the United States air traffic system the safest and most efficient in the world, but says that it won't happen unless there is an up-roar from the aviation community.

For additional information contact Donavon Decker, Princeton IAM Union Steward, at [decker63@hur.midco.net](mailto:decker63@hur.midco.net).

Please email us your comments on the topic of Flight Service Station services. We are interested to know how dependent you are on current services; any difficulties you are encountering with current services, either in the air or on the ground; whether or not you "self-brief" and file your flight plans online; and how you would like to see the Flight Service Station system evolve in the future. Email your comments directly to me at [dave@midwestflyer.com](mailto:dave@midwestflyer.com). We reserve the right to publish your comments in the magazine or online at [www.midwestflyer.com](http://www.midwestflyer.com).

Thank you! □

## Showing That You Care

by Craig Fuller

President & CEO

Aircraft Owners & Pilots Association

There's no better opportunity than during an election year to let the people who represent you in Congress know what matters to you. Incumbents and challengers alike are paying close attention to the issues that resonate with voters in their districts, and with all 435 House seats and many Senate seats up for a vote, that means politicians want to know what you care about.

With that in mind, I have been asking pilots I meet how they feel about getting involved in the election process, and I have been impressed by



Craig Fuller

how willing they are to step forward and make their voices heard.

In fact, we recently conducted an informal poll among readers of Aviation eBrief that put numbers to that sentiment. In case you aren't already familiar with it, Aviation eBrief ([www.aopa.org/eBrief](http://www.aopa.org/eBrief)) is a free, daily e-mail newsletter that aggregates news about general aviation from a wide variety of sources. It's a quick, easy way to stay in touch with the issues that affect our flying. There are currently nearly 175,000 subscribers, including some 30,000 who aren't AOPA members.

When we asked readers whether they'd be willing to attend a GA Serves America event for their congressman or senator, 42 percent told us they'd definitely turn out.

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And another 43 percent said they'd consider it. That's great news because getting engaged in the election process and letting your representatives know that protecting GA is important to you is one of the best ways to ensure that it's important to them, too.

Since we were asking, we also asked our readers to tell us about their flying – and 53 percent told us they'd be flying more in 2010 than they did last year. Another 32 percent said they'd fly about the same amount. Numbers like those make me optimistic about the impact the GA

community can have. The more we fly, the easier it is to demonstrate that general aviation really is a vital part of our national transportation system – and that's one of the critical messages the GA Serves America campaign will be delivering this year.

Of course, our readers are not without concerns, too. When we asked about the biggest challenges GA would face in 2010, 42 percent told us the economy topped their list, while 37 percent said user fees would be the number one challenge and 19 percent cited security. And of course, they're

all right. At various points during the year, we will have to deal with each of these issues and their relative importance will change along with circumstances.

I'm concerned about all of these issues, too. But mostly I am optimistic about a community that's so willing to get involved and so acutely aware of the challenges we must face. I encourage all of you to stay engaged in the election process, keep up to date with the issues facing GA, and above all, keep flying!

[www.AOPA.org](http://www.AOPA.org)



Bill Blake



## Accepting The Bad With The Good Then Moving On!

**A**s I prepared to write this column at the end of 2009, I reflected on what happened during the year and what we might have to look forward to that could impact general aviation in 2010. Most of the highlights for general aviation state legislative activity in 2009 are what bills did not pass. As you all know, the states in this region have been suffering budgeting shortfalls caused by a poor economy. It is no surprise that state governments looked for ways to raise revenues. Read that to mean increased taxes and fees. However, most state legislators realized that their constituents were already struggling in a poor economy and that this was not the best time to raise taxes and fees.

At the end of the 2008 legislative session, a bill was introduced in Michigan, which would have greatly

increased state aviation fuel taxes. AOPA and others opposed the bill. Fortunately, the bill could not gain traction and was never called for a floor vote. All through the 2009 legislative session, there were rumors that a similar bill would be introduced, but as of this writing, that has not happened.

In Minnesota, the state legislature created the "Airport Funding Advisory Task Force," which submitted a report in January 2009 making several recommendations. Included in the report was a proposal by the Minnesota Business Aviation Association (MBAA), which would reduce the aircraft registration fees and substantially increase the state aviation fuel tax on jet fuel. However, the recommendations made no changes affecting piston aircraft. Although there were rumors that a

bill would be introduced increasing aviation taxes, that did not happen. It is believed that a bill will be introduced in the 2010 session. AOPA will analyze any proposed legislation and work to protect general aviation pilots and our members. As you may remember, the Minnesota Legislature "borrowed" \$15 million from the state aviation trust fund to shore up the general fund. Although all of the \$15 million should have been repaid in 2009, that has not happened. Only a token amount has been returned to the state aviation trust fund. It is expected that more will be returned in 2010.

The State of Indiana Aviation Office Manager announced at the Annual Aviation Association of Indiana Fall Conference that the legislature had not provided adequate funds for the state to meet its full matching share of 2 ½ % for anticipated federal airport improvement grants. Local airport sponsors will have to make up the shortfall in order to receive any federal grant money.

A bill was introduced in Illinois to add a five percent luxury tax on aircraft selling for \$500,000 or more, on top of the already existing sales tax. AOPA strongly opposed the bill, which never made it out of committee.

Illinois and Wisconsin are also struggling financially. It is yet to be seen whether these states will

be able to continue to fund needed airport projects. Both states have had significant cuts in aeronautics personnel staffing.

At the national level, a long term FAA Reauthorization Bill was not passed. The FAA is working under another three-month extension.

As you can see, some of the things that did not happen in 2009 were good. None of the proposed or rumored state aviation tax increases

were passed. However, some of the things that did not happen were bad, such as not receiving the full return of funds borrowed from the "Minnesota Aviation Trust Fund," and not receiving adequate funding to provide state matching shares in Indiana for federal airport improvement grants. I predict we will be facing many of these same issues in 2010. AOPA will continue to work to protect and improve general aviation. All of

you can play an important role in the future of general aviation. Stay informed and let your state, local, and federal elected officials know your views. You can also help general aviation (and yourself) by flying as often as you can.

For more information on these and other issues facing general aviation, please go to: [www.aopa.org](http://www.aopa.org). □

AOPA Aviation Summit  
November 11-13, 2010 - Long Beach, CA

## Paper Pilot Certificates Not Valid After March 31, 2010

WASHINGTON, D.C. – The Federal Aviation Administration (FAA) has mandated that all pilots switch to a plastic pilot certificate by March 31, 2010. The new certificate can be requested through the FAA's web site, [www.faa.gov](http://www.faa.gov). If your old certificate uses your social security number for the certificate number, you can request to change your certificate number and

the FAA will provide a new certificate for free. If you are not changing your certificate number, there is a \$2 fee for the new certificate.

Since it is a requirement to be able to read, speak, write and understand the English language to get a U.S. pilot certificate, all certificates are being issued with the English language proficiency statement now required to fly internationally (Canada).

If you miss the deadline, there

is no penalty or loss of privileges, but you cannot legally fly until you have the new certificate. Temporary, student, and flight instructor certificates are not impacted by this rule. Those with non-pilot certificates, such as ground instructors, flight engineers, and mechanics, will have until March 31, 2013 to change to a plastic certificate.

For more information see: [www.faa.gov/license\\_certificates/airmen\\_certification/certificate\\_replacement](http://www.faa.gov/license_certificates/airmen_certification/certificate_replacement). □



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# TBM To Colombia...

## Faster & More Fun Than Flying On The Airlines

*by Guilherme Schmidt*

I had to attend a business meeting in Cartagena, Colombia. The meeting started with a cocktail meeting on Wednesday. In order to make the meeting at 5:00 pm, flying commercially, I would have to leave the day prior, fly all day to Bogota, and catch a following morning flight to Cartagena. Flying myself just made more sense, and would be more fun than going through airline security.

There were three of us that needed to attend the meeting. I hold an Airline Transport Pilot (ATP) certificate and fly for a hobby. I own a Socata TBM 850, which is a single-engine turboprop pressurized airplane. One of my colleagues did not feel comfortable flying in a single-engine plane over the ocean to Colombia and took the commercial route. He left on Tuesday in order to be there on Wednesday afternoon.

The TBM flies at a cruise speed of 310 knots in ISA conditions, burning about 50 gph. It is well equipped with boots for icing conditions, and has two Garmin 530s, a GMX200, and Honeywell Efis 40. The TBM 850 has a range of just over 1,400 nm, making the trip very doable. The two of us decided to leave on Wednesday morning. I left home at 6:15 am and we were wheels up at 7:00 am.

We took off from Flying Cloud Municipal Airport (FCM) in Eden Prairie, Minnesota and flew nonstop to Fort Lauderdale, Florida (FLL), and then nonstop to Cartagena, Colombia (SKCG).

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The trip planning was relatively easy. It was 1,340 nm to FLL and 1,080 nm to Cartagena. The biggest thing was that the direct route to Cartagena would take us over Cuba, so I needed a Cuba over-flight permit. I spoke to "Air Journey," which is a company that helps pilots plan international trips. They arranged for the Cuba over-flight permit, and the handling in Colombia. They also arranged for life raft rental in Fort Lauderdale. The raft is not an FAA requirement, but strongly advised.

With the permit for flying over Cuba in hand, we launched to FLL. It was an uneventful flight, and we only had about a 10-knot tailwind going down. It took us 4 hours 30 minutes from takeoff to landing, and the only weather was a few rain showers while arriving in FLL. We touched down, went to National Jets, picked up our raft that was waiting for us, and went out for lunch in one of National's courtesy cars.



Guilherme Schmidt with his Socata TBM 850 at Flying Cloud Airport, Eden Prairie, Minnesota.



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[www.youtube.com/user/MetAirCommission](http://www.youtube.com/user/MetAirCommission)

Back at the airport, we put the raft in the plane and tied it to one of the seats, briefed ourselves on the emergency evacuation plan, and filed our flight plan to Cartagena, which is pretty easy. One has to use the International Civil Aviation Organization (ICAO) Flight Plan Form. The only unique aspect of the form and our flight plan was to note the Cuba over-flight permit, and the Estimated Time Enroute (ETE) where we crossed each Flight Information Region (FIR) for the different countries. We had three FIRs to cross from: Miami Center to Havana; Havana to Kingston, Jamaica; and Kingston to Barranquilla (Colombian controlled airspace).

We took off from Fort Lauderdale at 2:00 pm local time, dodged some storms, and were quickly cleared to UCA (Ciego de Avila VOR over Cuba). One has to file airways when you are going down that route. There are no direct flights. We climbed to our cruising altitude of 31,000 ft, and settled in at 290 kts TAS. It was a very warm day of ISA+15, and this caused us to fly slower, but we “just” burned about 47 gph.

Soon enough we were talking to Havana Control. There were lots of thunderstorms over Cuba, and everyone was deviating. Cuban controllers spoke very good English, and were some of the most helpful controllers I ever came across. They were very accommodating. From there we moved on to fly over Jamaica and talked to Kingston Control. Again, thunderstorms over Jamaica, and we went around the island.

Jamaican controllers switched

us over to Barranquilla Control. Barranquilla is actually an airport 50 nm away from Cartagena, Colombia and was our alternate destination. Barranquilla still did not have us on radar, and we had to revert to the good old days format of position reporting: aircraft identification, position, time, altitude, and the estimated time to the



On approach to Cartagena-Rafael Nunez Airport (CTG), Cartagena, Colombia.

next waypoint. When we were 200 nm out of Colombian shores, they picked us up on radar, and asked us to advise them Top of Descent (TOD). TOD came, and we started the let down. We found the airport, and were switched to the tower with a clearance to the visual approach.

Landing was uneventful, and we were met at the ramp by the FBO, and drug enforcement policemen, who checked our plane quickly for any drugs. The fuel truck came and topped us off. They did not have prist, but fortunately I had a can along. Jet A in Cartagena was \$2.79 U.S.... very reasonable. I locked my fuel tank caps (first time I ever did that), and we were taken to immigration, which happily stamped our passports. Flying time was 3 hours 30 minutes, and by 5:00 pm local time (Cartagena is in the Central Time Zone), we joined our

party at the hotel for cocktails.

Cartagena is a beautiful destination, and a pretty city. Just think, we made the trip from Minnesota with one stop in a single-engine plane, which is quite amazing.

Saturday was the return trip. Our colleague flying on the airlines left the hotel at 4:40 am, for a scheduled

touchdown in Minneapolis at 8:30 pm. We woke up at 7:00 am, had a relaxing breakfast, and left for the airport at 8:00 am. At the airport, we paid a landing fee of \$90.00 U.S. and communication fees of \$30.00, plus \$25.00 per day for parking. Welcome to the world of user fees! We had our passports stamped again, presented our flight plan, and were airborne at 9:00 am. The trip back was uneventful

with beautiful weather. It took us 3 hours 40 minutes to FLL due to small headwinds. We had a very good look at Cuba, as the weather was clear. Cuba looks like a beautiful country with nice beaches.

We arrived in FLL and went to customs parking. The immigration officers were very nice; they inspected our bags and the airplane without much fuss, stamped our passports and cleared us. The FBO sent a fuel truck to the customs ramp, fueled us, collected the raft and sent us on our way. The whole process took about 45 minutes and we were soon airborne again. We had a good amount of headwinds and stopped in Shelbyville, Tennessee for fuel and lunch. We ended up arriving home at 7:30 pm, still well before our friend flying with the airlines.

Need I say more? Fly GA whenever you can!



# GENERAL AVIATION SERVES AMERICA



## Staying in touch with GA

I am excited to be back on the road--or more aptly in the air--bringing the GA Serves America message to pilots all across the country. It's exciting to see how the movement is gaining momentum of its own, and how clearly the message resonates with pilots everywhere.

I am equally thrilled by how knowledgeable the pilots I encounter are about the issues that affect our flying. Many of the folks I talk to tell me they regularly read Aviation eBrief ([www.aopa.org/ebrief](http://www.aopa.org/ebrief)), a free daily e-mail newsletter that aggregates general aviation-related news from a wide variety of sources. It's a fast, easy way to keep up with what's happening in GA, and less than a year after its launch almost 175,000 people are subscribers--including some 30,000 who aren't AOPA members.

We recently conducted an informal poll of Aviation eBrief subscribers to get a read on how this substantial and growing segment of the pilot population views the year ahead. Fifty-three percent of respondents told us they expect to fly more in 2010 than they did last year. Another 32 percent told us they expect to fly about the same amount as last year. Those are great numbers. The more we fly, the easier it is to make the case that general aviation is a vital part of the national transportation system--one of the key messages of the GA Serves America campaign.

Our readers also told us they'd be ready and willing to tell their congressman or senator that they value GA by participating in GA Serves America events in their area.

Forty-two percent of respondents told us they'd definitely participate while another 43 percent said they would consider it. That's great news because in this election year, when every one of the 435 seats in the House and many additional seats in the Senate will be coming up for a vote, you can bet that candidates for office are paying attention to what matters to voters. Getting engaged in the election process and letting your representatives know that protecting GA is important to you is one of the best ways to ensure that it's important to them, too.

I hope you'll be part of getting that message across by getting engaged with the GA Serves America campaign, coming out to events in your area, and above all, continuing to fly!



Craig L. Fuller  
AOPA President and CEO



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# The DAHER-SOCATA TBM 850...

## *The Very Fast Turboprop!*

If you are looking to get around in a hurry, with the capability of trans-continental flight, yet are not yet ready for a pure jet, then the DAHER-SOCATA TBM 850, nicknamed the “Very Fast Turboprop,” may be your answer. The TBM 850 is the world’s fastest single turboprop aircraft, with a maximum cruising speed of 320 KTAS at Flight Level 260 (in ISA conditions). It combines the cruising speed and trip times of a light jet with the economic direct operating costs, range and the moderate environmental signature of a turboprop. The maximum range and useful load – which are enhanced on the current model – and the capability to land at small airports, are some of its customers’ favorite features.

At \$3 million, the TBM 850 is not for everyone, but nice if you can afford one. It’s an owner-operator aircraft. The U.S. is the largest single market for TBM family aircraft. In 2009, more than 70 percent of all TBM 850 deliveries were for U.S. owner/operators.

In 2009, DAHER-SOCATA introduced the FAST (Fly And Share Your TBM) co-ownership program, which provides days of exclusive use per year on an unlimited flight hour basis, which differs from traditional fractional programs requiring the purchase of annual flight hours used or lost.

### **TBM History**

Founded in 1863, DAHER is an independent international group, with more than 7,000 employees and 12 international installations (four in Western Europe, three in Eastern Europe, two in North America, two in Africa and one in Australia).

DAHER is a European integrated equipment and services supplier. In addition to aerospace, DAHER specializes in two other sectors:

nuclear and defense. DAHER SOCATA is one of the world’s leading general aviation manufacturers, with more than 17,000 aircraft built since its creation as Morane-Saulnier in 1911. Current products include the TBM 850 turboprop aircraft, aero-structures for civilian airliners, military transports, business and regional jets, and helicopters.

In 1990, DAHER-SOCATA certified with the FAA and French DGAC (now EASA) the first, fully-pressurized, single-engine, turboprop



DAHER-SOCATA TBM 850

aircraft in the world, the TBM 700A. The TBM 700 airframe design incorporated a variety of aluminum and steel alloys, including Titanium, as well as advanced composite materials that come together in an airframe of unmatched structural strength and durability at the lowest possible weight at an affordable cost. Design engineers employed failsafe design techniques on the TBM airframe including the use of multiple load paths, a crack-stopper band and a minimum number of smaller access panels to maximize structural life and sub-system reliability, as well as to minimize repair-cycle times.

In 1992, to replace the obsolete Morane MS 760 Paris Jet, DAHER-SOCATA began an on-schedule and on-budget delivery of the TBM 700A to the French Air Force and French Army Aviation. According to feedback from French military pilots, the TBM is “simple to master, a dream

to fly and has superior performance characteristics across the entire flight envelope.” The French Armed Forces have accumulated up to 600 flight hours per year per aircraft in accomplishing a wide range of VIP passenger and light-cargo missions in varied operating environments, including operations in combat zones.

Certified in 1999, the TBM 700B model added a larger cargo door and an optional pilot entry door. While its commercial success was growing in the U.S., the French Army Aviation took delivery of three B model aircraft, bringing the total military aircraft to 28 TBM 700s in 2002. With the addition of a gaseous back-up oxygen system (with EROS quick donning masks), the service ceiling of the TBM 700B was raised to 31,000 ft.

In 2003, the TBM 700C2 was certified with an increased maximum takeoff weight of 7394 lbs, allowing for an increased payload of 865 lbs with full fuel. This modification included reinforced airframe and landing gear, crashworthy seats certified to 20 Gs, new interior, and a new rear external luggage compartment. The TBM 700C2 was also certified at 31,000 ft, thanks to the gaseous oxygen system.

In 2006, DAHER-SOCATA introduced the TBM 850. Strictly identical to the airframe of the TBM 700, the TBM 850 aircraft is also powered by the Pratt & Whitney PT6A turboprop engine. The new PT6A-66D powerplant produces 1825 eshp flat rated to 850 shaft horsepower and gives the TBM 850 jet-like performance with turboprop efficiency and economy.

During the last 20 years, DAHER SOCATA has delivered more than 500 TBM aircraft and accumulated more than 600,000 flying hours of reliable and safe operations without a single structural airframe failure. DAHER-SOCATA’s TBM 850 defines a new class of airplane, the Very Fast Turboprop (VFT), breaking new speed records against its predecessor, the TBM 700. [www.tbm850.com](http://www.tbm850.com) □

# Getting Your Feet Wet... What To Do If You Have To Ditch

*by Steve Schapiro*

U.S. Coast Guard



U.S. Coast Guard water rescue.

**W**hen Captain Chesley B. “Sully” Sullenberger and First Officer Jeffrey B. “Jeff” Skiles ditched their U.S. Airways Airbus A320 (Flight 1549) into the frigid waters of the Hudson River on January 15, 2009, they wrote one of the most dramatic episodes in the history of air transport.

“Miracle on the Hudson” was so remarkable because it happened so quickly – the entire flight lasted about 5 minutes between takeoff and splash down, and all 155 passengers and crew survived.

The reason there were no fatalities is because Sullenberger and Skiles knew what to do and acted quickly to land their stricken aircraft safely on the water. Once in the water, the crews of the ferryboats contributed greatly to the happy outcome.

If you were the pilot-in-command on that January day, would you know how to ditch properly? For all pilots, particularly those in the Midwest who fly across the Great Lakes, or those planning on flying to the Bahamas, this is a question worth knowing the answer to.

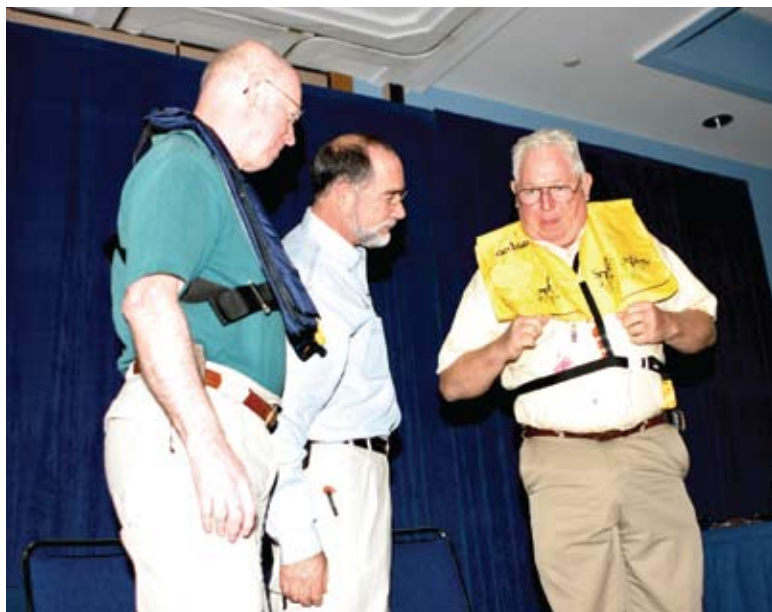
At the AOPA Summit in Tampa, Florida, this past November, Douglas Ritter, Founder and Chairman of the Equipped To Survive Foundation and Editor of the Equipped To Survive web site, led a seminar on “Ditching and Water Survival” to a standing-room-only crowd. Ritter detailed the basic steps to ditching safely and demonstrated

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Douglas Ritter, Founder and Chairman of the Equipped To Survive Foundation, demonstrates the "do's and don'ts" of using an inflatable life vest. The number one rule is, "don't inflate it until you have left the aircraft."

the type of equipment general aviation pilots should have on board if their flights include over-water routes.

Ritter said there are three keys to survival: be smart, be prepared and be equipped. Many pilots may be surprised

to learn that 88 percent of ditchings are not fatal. In fact, 92 percent of all ditchings are considered successful, meaning the occupants were able to get out of the aircraft after hitting the water. If you eliminate long over-water flights, like ferry flights, the success rate increases to 95 percent.

The bottom line is simple: If you have to ditch, you have a good chance of survival – provided you have the correct knowledge and equipment. No pilot wants to get their feet wet. But Ritter emphasized that depending on the terrain, a river or lake may be your best option in an emergency. In the case of U.S. Airways Flight 1549, it was the only option.

There are three basic phases to keep in mind: the ditching itself, the egress (exiting the aircraft), and survival and rescue.

### Ditching

First, it is important to identify the emergency quickly and make your Mayday call as soon as possible.

When communicating your situation, the most important information to provide is your location. Once you go down, every minute counts. The longer you are in the water, the greater the search area becomes. As you drift, the search area expands exponentially; increasing the time it may take for search and rescue to locate you.

When calling air traffic control, give them your current location, preferably GPS coordinates, but at least provide controllers with your distance and direction from a readily identifiable location. Don't forget to include your altitude, course, and speed so they can calculate your projected flight path if communication is lost.

As you descend, set up the aircraft for the best glide speed only if heading for a particular spot. In many cases, you will do better to set up for your minimum sink speed providing the maximum time aloft before splashdown. Most pilot operating handbooks (POHs) don't include this, but as a rule of thumb it is usually about halfway between your stall speed and the best glide speed.

You can determine your minimum sink speed for your aircraft with a little experimentation before you need it in an emergency.

As you get to about 1,000 feet AGL, resume your normal approach speed. By this point, you should already have prepared yourself and your passengers for the water landing.

Ritter recommends buying a constant wear vest, rather than the standard airline issue vest. He demonstrated the difference between the styles with two volunteers from the audience. The constant wear vest looks like an H-harness – a couple of shoulder straps and something around your waist. It is lightweight, comfortable and unobtrusive.

On the other hand, an airline style vest first has to be

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taken out of its packaging, unfolded and then placed over your head. The waist straps have to be located, clipped together and pulled tight. Regardless of the inflatable vest you own, do not inflate the vest until after you have exited the aircraft.

A good constant wear life vest can vary in price from \$75 to \$250. Ritter's web site [www.equipped.org](http://www.equipped.org) has a list of vests and an evaluation, which will give you a sense of styles and costs.

It is important to brief your passengers on what to expect: the order people should exit the aircraft...what to do if the door won't open...and who should retrieve the survival gear (if you have an inflatable life raft or other survival gear).

Seat belts should be tight and hazards like glasses, jewelry, ties, etc., should be removed. Headsets should be removed and stowed, and the door should be unlocked and wedged open if possible. If your aircraft has gull-wing doors, do not open them until after ditching.

Now it's time for landing. How you land depends on the body of water:

River – Land with the current.

Lake – Land into the wind.

Ocean or Large Lake – It depends on the wind and water:

- In calm water, land parallel to the swells.
- If the wind is  $\frac{1}{3}$  to  $\frac{1}{2}$  of your landing speed, land at an angle splitting the direction of the wind and the swell.
- If the wind is more than  $\frac{1}{2}$  your landing speed, land into the wind.

Avoid landing into the face of a swell. If you have to land with the swells, land on the back or downside of a swell.

When coming in on final approach, the lower your touchdown speed, the better result. If you still have power, you will want a shallow approach and keep your speed about 5 to 10 knots above stall speed. If it is a power-off landing, be sure to avoid a full stall. Keep the wings level or parallel to the water and a slightly nose-high attitude.

If you have a low-wing aircraft, Ritter advises using no more than 50 percent flaps. If you are flying a high-wing aircraft, you'll want to use maximum flaps unless that would block an exit. Retractable gear should be up. Be sure to override the automatic gear extension if your aircraft has such a feature.

Be prepared for rapid deceleration and anticipate that the



Wreckage of a small plane.

U.S. Coast Guard

windscreen may cave in. Ritter advises to hold your breath just before impact. Upon hitting the water, there are three possible outcomes: a big splash, the plane could skip, or in rare instances, it may flip.



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## Exiting The Aircraft

Congratulations! You've successfully splashed down! Now it's time to get out. But not to worry, you have followed your ditching checklist and you are prepared.

Expect water to rush in. The average breath hold time is 39 seconds. However, if you are panicking, that time could be cut in half. For about \$300 you can purchase an Emergency Breathing System such as a Spare Air that will provide 30 to 48 breaths, but it does require training.

Even if you have lungs like Michael Phelps, you will need to be concerned about Cold Gap Reflex (CGR). This is the involuntary and uncontrolled exhalation resulting from immersion in cold water. It is usually over in 60 to 90 seconds. The startling thing is CGR can begin in water as warm as 77 degrees Fahrenheit!

Since you've already unlatched and propped the door open, hopefully

it shouldn't be too difficult to get out. If the aircraft flipped, you may become disoriented, but as long as you are strapped in, the exits are in the same place relative to your seat as they always were. Don't panic. Always grab hold of something solid to maintain a reference point before releasing your seat belt.

If your exit is blocked, go to an alternate exit, like a window, another door or even the luggage compartment door. If you need to pull yourself out, don't kick. If you get stuck, it's best to back up, rotate your body and try again.

Once out of the aircraft, don't go back! If you need to reach back in to get survival gear or to help a passenger, that's alright. But don't go back in. Get clear and reach above to the surface. Exhale slowly on your way up. If you cannot tell which way is up, inflate your life vest.

## Survival & Rescue

Now that you are out of the aircraft, there are two key concerns: your state of mind and exposure. Cold water will incapacitate you. You will lose control of your muscles and won't be able to swim after 15 minutes if the water is 40 degrees Fahrenheit or less. Ritter said in a test where people were put into water which was 72 degrees Fahrenheit, it took about an hour for hypothermia to set in.

The best thing to do is to limit your movement, which limits your heat loss. Closing up your groin by crossing your legs and holding your arms close, will also help.

If you plan to fly over large bodies of water, like Lake Michigan or the ocean, you should consider having a life raft on board. Single-tube rafts range in price from \$1,000 to \$4,000. The more expensive rafts usually have a canopy enclosure to provide some protection from sun and rain, better boarding aids and more stability enhancements and survival gear.

All but the least expensive rafts

will have a mooring line to attach to the aircraft. This is so the raft won't drift away as you inflate it and board. The mooring line is designed to break if the plane sinks, so don't worry about the plane pulling the raft down. The strongest person should get into the raft first and help others in. Once you are in the raft, you can cut the line, unless the aircraft is continuing to float, in which case, don't cut it.

Be careful of sharp objects...you don't want to puncture the raft. Also keep your life vest on. The only time you may want to take it off is if the waves are calm to moderate, and the water is cold. In that case, take off your life vest and sit on it.

Now that you are down and out of the aircraft, either floating in a raft or with your life vest, how will your rescuers find you? Ritter showed an aerial photo taken from 1,000 feet AGL over open water and asked people in the room to find the person. It was nearly impossible.

There are several options for signaling that can aid your rescue. During the day a signal mirror is the best device. If you don't have a mirror, any shiny object will do – a watch, belt buckle, a CD, jewelry, even the hologram on a credit card. The flash from a mirror can be seen for 20 to 50 miles.

Another relatively low cost item is a sea dye marker or a rescue streamer. Streamers sell for about \$40. Ritter showed the same photo of a person in the water taken from 1,000 feet AGL with a 40-foot rescue streamer. It was clear the advantage it gives the search and rescue, as you become a much bigger target to see from the air.

Other gear that can help you be spotted – particularly at night – are flares, a flashlight, a strobe light, a laser flare or reflective material. Keep in mind open flames are dangerous and flares will burn out after a short time. A laser flare won't accidentally burn a hole in your life vest or raft, can be just as eye catching and has a longer range. Red laser flares can be seen for 10 to 20 miles, while green



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laser flares can be seen for 30 miles or more. Laser flares range in price from \$99 to \$250.

Ritter also advised purchasing a waterproof pouch for \$20 to \$30 to protect your cell phone, handheld radio, portable GPS, or satellite phone. You may think a zip lock bag will do, but are you willing to bet your life on something designed to hold a ham sandwich? I wouldn't either.

If you really want to be found quickly, invest in a 406 MHz Personal Locator Beacon (PLB). This is something that you should carry on you, so don't tuck it away in your flight bag. They weigh between 5 and 10 ounces and have global coverage.

If your aircraft sinks, an Emergency Locator Transmitter (ELT) will no longer send out a signal. With a PLB sending out a signal, your rescuers will know exactly where you are, taking the mystery out of the search. There are a few different models to choose from, but Ritter recommends either the McMurdo FastFind 210 GPS PLB that sells for \$299, or the ACR SARLink 406 GPS PLB that sells for \$399.

A lower cost option is the SPOT GPS Satellite Messenger (second generation, not the first generation). It costs \$150 and runs on three AAA lithium batteries, but requires an annual subscription that ranges from \$100 to \$150, plus tax. If the subscription has expired, there will be no distress alert. Another drawback to the SPOT is that it requires a GPS location and it doesn't have global coverage or a Doppler backup location like the PLB. Ritter was quite persuasive in making the case for a PLB over the SPOT.

If faced with an emergency landing in water, there is a strong likelihood that you will survive. All you need to do is use your head and communicate your situation and location as soon as possible. Then start going through your procedures – set yourself up for the minimum sink rate or best glide as appropriate, and prepare the passengers and cabin for impact. Once you are down, get out of the aircraft, inflate your life vest, climb into your raft if you have one, deploy your PLB, and wait for search and rescue to come get you. For more information on ditching, go to Douglas Ritter's website: [www.equipped.org](http://www.equipped.org). □



Dave Weiman

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President Franklin D. Roosevelt greets CAP Coastal Patrol pilot Edmond I. "Eddie" Edwards at the White House in February, 1943. The first Air Medals of World War II to be presented personally by the President were given to Edwards, by then a lieutenant in the U.S. Navy, and to Coastal Patrol Base 2 Commander, Major Hugh Sharp, CAP (seen here to Edwards' right.) Edwards and Sharp were honored for their dramatic 1942 sea rescue of a downed CAP anti-sub pilot. James M. Landis, chief of the Office of Civilian Defense, looks on.

## Eddie Edwards & The Sikorsky S-39 That Saved The Day!

NEWARK, DE – Eddie Edwards, famed World War II Civil Air Patrol (CAP) pilot and co-recipient of the first Air Medals of World War II to be presented personally by the President of the United States, was honored by CAP and the aviation history community December 12, 2009, following his death December 5 at the age of 96.

Lt. Edwards accepted his Air Medal from President Franklin D. Roosevelt in the Oval Office in February, 1943, along with the award to his base commander, the late Major Hugh R. Sharp, Jr., CAP. Sharp and Edwards were honored for their daring amphibious sea rescue of a downed Base 2 anti-sub pilot off coastal Maryland in 1942.

Nazi subs were devastating U.S. coastal shipping heading for New England and Europe in the early months of WWII. Volunteer civilian pilots, using their own private airplanes, formed the Civil Air Patrol to spot subs and call in military attacks.

Coastal Patrol Base 2's rescue amphibian was able to find one of the two downed CAP crewmembers, but was damaged landing in rough seas. With Major Sharp at the controls, Eddie Edwards crawled out on a wing to counter-balance loss of the seaplane's opposite pontoon. He hung there for 10 hours while Sharp water-taxied the un-flyable Sikorsky towards shore. Edwards had to be "pried" from his frozen perch by Coast Guardsmen who met the aircraft.

The CAP rescue amphibian involved is now on display at the New England Air Museum at Bradley International Airport, Hartford, Connecticut, next to a CAP Stinson



New England Air Museum

The Sikorsky S-39 amphibian Eddie Edwards and Maj. Hugh R. Sharp, Jr. of the Civil Air Patrol used in their daring rescue of a downed anti-sub pilot off the coast of Maryland in 1942. The aircraft is now on display in the New England Air Museum in Windsor Locks, Ct., near Hartford. In the early 1930s, Sikorsky built 23 of these amphibians for the sportsman or executive pilot. During World War II, the S-39 was used by the Civil Air Patrol for air-sea rescue missions. The S-39 also earned the Sikorsky Company the prestigious Collier Trophy. Following its restoration, the museum held a dedication ceremony on Nov. 1, 1996. The S-39 was fondly described by a speaker as having the appearance of "a collection of airplane parts flying together in the same direction."

10A similar to the downed single-engine patrol plane. Edwards attended the museum's installation of the Sikorsky S-39, restored in the 1990s by retired Sikorsky Aircraft employees. Flashbulbs popped as Edwards posed on the wing strut he occupied for hours at sea in 1942. (Modestly, Edwards told the museum audience he was "only out there to escape the screams of the badly injured flier inside.")

Edwards is credited as the first civilian Coastal Patrol pilot to locate and report a Nazi sub to the U.S. Navy, spotting one off Delaware Bay on March 10, 1942, just days after his base was activated. Subs lurked there to torpedo tankers leaving Philadelphia refineries with vital fuel oil for New England and Europe. One historian estimates Edwards made 300 patrols over the coastal Atlantic in CAP's rickety 90-hp single-engine planes – some 90 of which ditched at sea after engine failures.

Of 59 CAP fliers killed during WWII, 26 were lost at sea. The Civil Air Patrol located 173 enemy subs, attacked 57 (after its planes were armed later in 1942), and sank at least one if not two. Coastal Patrol anti-sub operations ended in August, 1943, but the CAP continued its infrastructure security, border patrol, air courier and other flying missions to war's end and beyond.

Originally organized under Civil Defense, the CAP became the civilian auxiliary of the Army Air Forces in 1943. In the same capacity with the U.S. Air Force since 1948, it continues to fly search-and-rescue and homeland security missions nationwide.

Edwards still flew his own airplane until age 85. He

was a member of the Civil Air Patrol, AOPA, the OX5 Aviation Pioneers, the Quiet Birdmen and the Veterans of Foreign Wars. Like many CAP fliers, Edwards went on to active WWII military service. He flew three years

in the Navy and served 27 years in the Naval Reserve.  
*Type:* Airplane  
*Manufacturer:* Sikorsky  
*Model:* S-39B  
*Common Name:* Jungle Gym

*Wing Span:* 52  
*Length:* 31.92  
*Weight:* 2673 lbs.  
*Location:* Near south wall of Civilian Hangar by Civil Air Patrol exhibit.  
*Year Made:* 1930

## 406-MHz ELTs Not Yet Required Flying To Canada... Inexpensive PLBs Seen As Alternative By Some

OTTAWA, ONTARIO – As of January 11, 2010, pilots flying to Canada are not yet required to upgrade to a 406-MHz emergency locator transmitter (ELT). Canadian Minister of Transport John Baird suspended the controversial rule, which would have required all aircraft flying in Canada to be equipped with the 406-MHz ELT starting in 2009. Apparently, it is the Canadian Department of Defence, which wants the new requirement across the board to cross the border.

According to Kevin Psutka, President & CEO of the Canadian Aircraft Owners & Pilots Association (COPA), Canadian Minister of Transport John Baird refused to sign the rule because it did not include any viable alternatives to equipping with the 406-MHz ELTs. A new rule is to be drafted that includes alternatives.

"I am hopeful that the agreement that was reached with Transport Canada officials to permit private aircraft to retain their existing 121.5 MHz ELTs, will be reflected in the amended regulation," says Psutka. There is no date set for the revised regulation, but there will be a transition period permitted once enacted.

The existing regulation CAR 605.38 permits older ELTs (TSO C91), newer ELTs (TSO C91a), or the newest ones broadcasting on 121.5 MHz, 406 MHz, and some also on 243 MHz (TSO C126).

The new 406 ELT starts at \$1,000, plus installation, compared with the cost of a 406-MHz personal locator beacon (PLB), which can be used in addition to the 121.5-MHz ELT. Some experts believe that PLBs costing between \$300-\$400 are more reliable than ELTs. The 406-MHz

ELT is digitalized, and allows search and rescue personnel to have vital information specific to the aircraft.

COPA encourages all pilots to carry something other than the old ELT on board to improve their chances of being found.

ELTs are required to be installed in almost all U.S.-registered civil aircraft, including general aviation aircraft, as a result of a congressional mandate, which resulted from the 1972 loss of U.S. Representative Hale Boggs and Nick Begich in Alaska after their aircraft went missing and was never found.

ELTs were originally intended for use on the 121.5-MHz frequency to alert air traffic control and aircraft monitoring the frequency. In 1982, a satellite-based international monitoring system was implemented (COSPAS-SARSAT) to provide a

better receiving source for these signals. As of February 1, 2009, COSPAS-SARSAT discontinued satellite monitoring of the 121.5/243-MHz frequencies, in part because of a high number of false signals attributed with these frequencies.

While there's no requirement in the United States to replace the first- and second-generation 121.5-MHz ELTs, distress signals transmitted from ELTs operating on the lower frequency can only be detected by ground-based receivers such as local airport facilities and air traffic control facilities or by other aircraft. Pilots are also encouraged to monitor 121.5 MHz whenever possible, the designated international distress frequency.

*Midwest Flyer Magazine* will continue to monitor the ELT issue.

Learn more about the 406-MHz personal locator beacon (PLB) from survival expert, Doug Ritter, at [www.equipped.org](http://www.equipped.org).

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## Engine Selection For S-LSA: Rotax vs. Continental

by Ed Leineweber



The Rotax 912ULS 100 hp engine dominates the S-LSA scene with about 80% of the market. Its innovative, advanced design has both fervent defenders and detractors, with points to be made on both sides. Although the engine is very reliable in service if properly operated and maintained, it can be difficult to find factory authorized technicians in many parts of the country.

The venerable Continental O-200-A 100 hp engine, now available in the "Light Weight" D model. Will the new edition prove to be as bullet proof as its aging cousin? Only time and experience in the field will tell. Stay tuned.

Last October, while visiting with Randy Schlitter of RANS Aircraft at the Midwest Light Sport Aircraft Expo, we found ourselves in a discussion about engine selection in Special Light Sport Aircraft (S-LSA). Obviously a topic of substantial interest in the Light Sport community, I pursued it in a telephone conversation with



Ed Leineweber

Randy last month. Recognizing that this is almost certainly one of those high-wing vs. low-wing, single- vs. multi-engine, pitch vs. power kind of aviation topics, we offer the following analysis for consideration and debate.

When it comes down to it, only two 100-h.p. engines dominate the S-LSA market: the Rotax 912ULS and the Continental O-200. There certainly are

other players. Jabiru in particular is beginning to make inroads, and I expect it to gain market share in the coming years. However, since its share is still quite small, with Rotax claiming perhaps 80% of the market, and Continental enjoying most of the rest, I leave the Jabiru engine for discussion in a future column. (Since Jabiru offers the 85-h.p. model 2200 and the 120-h.p. 3300, it would be difficult in any event to work it into an apples-to-apples comparison with the 912ULS and O-200.)

What makes the Rotax/Continental comparison fun are the strong feelings (we won't call them "prejudices"), which animate any discussion of Rotax engines, especially

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among us old-timers who were raised in a world before Rotax arrived at the airport. That would be a story in itself, but let's not go there. But before we proceed, let me, in the interest of full disclosure, admit this: I own no less than five small Continentals, four A65s and one O-200A, but I also have the initial level of Rotax factory-authorized service training. I love the old engines, but I am quickly overcoming any bias I ever felt toward the new designs.

My effort at engine comparison that follows is obviously grossly over-simplified, which might, I admit, make it downright useless, or even erroneous. Aside from both being rated at 100-h.p., the differences between the 912ULS and the O-200 are as numerous and perhaps as significant as are the similarities. Methods of cooling, carburetion and ignition differ greatly, as do fuels and oils required for each engine. But it comes down to this: if you buy an S-LSA anytime soon, you will most likely be choosing between these two powerplants. As you do, think about purchase price and operating costs, power-loading, useful load, range, performance, and maintenance. The engine details are only important to an owner/operator in the context of these considerations.

Confusing matters further will be the introduction of the new "Light Weight" Continental O-200-D. For purposes of this article, I will assume that S-LSA manufacturers will be going with the newer "-D" model in their production aircraft, although FAA-certificated aircraft restorers and homebuilders will probably stick with the old "-A" model, still in production at the factory after more than a half century.

### Purchase Price & Operating Costs

Let's start with the factors, which are the hardest to quantify. Engine prices depend upon the deal negotiated for the aircraft, and will include the price of complete installation,

including accessories. Operating costs will vary depending upon the type of operation, and the skill and attention of the operator. But we have to start somewhere.

According to Randy, the current RANS Aircraft price for a 912ULS is \$19,500. Leading Edge Airfoils, one of the factory-authorized engine vendors in the U.S., lists the same engine on its website for \$19,988, including gear reduction unit and starter. Let's split the difference and call it \$19,750 for a 912ULS.

The Teledyne Continental website did not show a retail price for the new O-200-D, but a recent article in *EAA Sport Aviation* magazine by Tim Kern stated that the number on the price tag is \$20,999, so let's go with that: \$21,000. (The company website does list variants of the O-200-A, with retail prices ranging from about \$22,100 to \$28,100; \$25,000 looks like the middle ground.)

By this comparison, the Rotax engine is a little cheaper than the Continental -D model, but not by much. Firewall-forward and installation costs will probably make the difference here, with the more complex Rotax probably costing more. Best we can say is that the engine prices, installed, are similar, with the Rotax set-up starting about \$1,250 lower for the engine alone.

Operating costs are easier to compare, although still subject to some rough guesstimates. It appears, however, that the Rotax comes out on top here as well.

Fuel consumption figures for the Continental are 6.3 gallons per hour (gph) at 75% power; for Rotax, the figure is 5.3 gph. That's a very significant 20% advantage to the



Ed Leineweber

The Jabiru Model 2200, while a distant third at this point in S-LSA engine selections, shows signs of gaining market share. An 85-hp, direct-drive, air-cooled, lightweight, four-stroke engine employing modern automotive engine technology, it appeals to many for its simplicity. Also available in 6-cylinder 120 hp version, the Model 3300.

912ULS. Since the O-200-D burns 100LL avgas exclusively while the 912ULS usually runs on auto gas, price differences at the pump between these two fuels, as well as availability at the airport, need to be considered. As of this writing, avgas prices in my part of the world averaged about \$4.20 per gallon, while auto gas is hovering around \$2.70. If you have easy access

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to mogas, fuel costs for the Rotax can be about \$12 per hour less than the Continental, an 85% reduction. Hard to ignore.

Other operating costs, including routine maintenance, are harder to quantify reliably. Most A&Ps are familiar with the venerable O-200 and the regulations and accepted practices under which they are maintained, but very few have much experience with the 912ULS. Worse, many technicians trained before the advent of the new generation of aviation engines have a positive aversion to dealing with them. Still worse yet, the ASTM consensus standards and many manufacturers' maintenance manuals under which S-LSA must be maintained to be legal and, therefore, airworthy, require that the technician have the appropriate level of factory-authorized training before laying a wrench to a Rotax engine. (Warranty coverage is also an issue, requiring work be done by factory-authorized technicians.) As a result of all this, availability of service on Rotax engines in the field is very spotty at this stage of industry development.

Parts costs for the two engines warrant some comparison as well. Since the Rotax employs modern automotive engine technology, some of the wear parts used are off-the-shelf automotive, and frequently cheaper than their aviation counter-parts. Spark plugs, for instance run about \$3 to \$7 each, rather than the \$27 to \$30 apiece for the typical aviation plug.

On the other hand, Rotax insists that after-market parts like oil filters not be used on its products, and Rotax prices are certainly not bargain basement.

Randy Schlitter notes that, while properly operated Rotax 912ULS engines rarely have maintenance issues, when they do, the problems presented can be more puzzling than the much simpler O-200s, and therefore more difficult to diagnose and correct. But before jumping to the conclusion that the experience with a half century of relatively bullet-proof O-200-As will carry over to the as-yet unproven, newly re-worked O-200-D, consider that the measures taken to lighten up the new edition, including lighter accessories, cylinders and internal engine components, might well lead to problems in the future. This might be especially true since the new Continental runs at a significantly higher compression ratio than its older cousin. Only time will tell; for now the O200-D must be taken as a bit of a pig in a poke.

The Rotax 912ULS has a 2,000-hour TBO (Time Between Overhaul), as does the Continental O-200-D. Overhaul costs are not included in this analysis, nor is the availability of overhaul facilities for either engine. While most S-LSA, which probably will not fly more than a couple hundred hours a year, will not be approaching TBO in the near future, this potentially very expensive operating cost should not be entirely overlooked in the buy decision.

## Weight, Useful Load & Performance

So much for trying to quantify the relative unknowns. The substantially heavier "Light Weight" Continental O200-D, compared to the Rotax 912ULS, gives the Austrian upstart several decided advantages over its slimmed-down but still tubby competitor. Let's guesstimate installed weights first.

According to the company, the weight of the O200-A with accessories is approximately 215 lbs. While the weight of the new -D model is not published on the Continental website, most industry observers estimate it is at about 25 lbs. lighter, so let's call it 190 lbs., accessories included. Rotax company data lists the 912ULS with typical accessories and installation hardware at about 152 lbs., or about 38 lbs. lighter than the comparable Continental installation.

Randy Schlitter, who has carefully studied and experimented with the installation of the O-200-D in RANS products, estimates that the Rotax 912ULS weighs in at about 225 lbs. installed, whereas the Continental is closer to 300 lbs., including muffler, oil cooler, engine mount and cowling. He believes, therefore, that the advantage to the Rotax set-up is about 75 lbs.

So, assuming that the Rotax is somewhere between about 38-75 lbs. lighter than a similar Continental installation, this weight differential favoring the Rotax has significant performance consequences for an aircraft with a maximum gross weight of only 1,320 lbs., the S-LSA limit. These include increased useful load, greater fuel capacity and range, reduced take-off and landing speeds and distances, lower stall speeds, and increased rates of climb. More weight up front, as might be the case with the Continental, also usually results in an aircraft that feels heavier in pitch control. Randy Schlitter refers to this as a "Big Airplane" feel, rather than the light pitch forces usually characteristic of the more sporty S-LSA.

The lower fuel burn of the Rotax



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can also translate into greater range, or increased useful load, depending on the airframe set-up.

### Debate Settled?

Hardly. In fact, with the introduction of the Light Weight O-200-D, and its new-product uncertainties, the next few years will probably contribute new data to talk about. It does seem to me, however,

that the rather surprising conclusion to come out of the comparison attempted here is that the two competitors are really running about neck and neck at this point in the race. Some factors favor one engine while others suggest another choice. Take a look at your situation, think it through along with all the other factors that affect a purchase decision, and reach your own conclusions.

While Rotax has earned a dominant

market position, the competition is heating up fast. Several major S-LSA players, including American Legend, CubCrafters, AMD and Cessna, are betting on Continental. Jabiru, while a distant third, is running hard, with Jabiru, Arion, X-Air, and Cheetah among those offering this engine option.

We will get this settled about the time we figure out which wing configuration is better. □

**AIRCRAFT**

## Piper Gets Light Sport Aircraft

VERO BEACH, FLA. – Piper Aircraft says it is going back to its roots with a Czech-built light sport aircraft the company is calling the “PiperSport.”

In its first appearance at the U.S. Sport Aviation Expo in Sebring, Fla. in January 2010, the company unveiled the aircraft, which was previously sold as the SportCruiser by Czech Sport Aircraft. The two companies now have a licensing agreement and Piper says it is ready to start deliveries in April.

“Piper’s heritage dates from what was one of the original ‘LSA’ aircraft of its time: the venerable Piper Cub,” Piper CEO Kevin Gould said. “Consequently, Piper is in many ways returning to a market segment we played an integral role in inventing... but with all the modern, state-of-the-art elements that our customers expect today, from design and manufacturing to performance, avionics and reliability.”

There will be three models; the basic PiperSport (\$119,900), training-oriented LT (\$129,900), and the decked out LTD (\$139,900). All models will be powered by the Rotax 912 that will run on premium unleaded mogas or 100LL. Useful load on the mandated maximum weight of 1320 pounds is 600 pounds. If the seat and baggage load allow, the tanks will hold 30 gallons and maximum range is 600 nm.

Like other manufacturers of larger aircraft that have included LSAs in their lineup (i.e. Cessna), or are



PiperSport

planning to (i.e. Cirrus), the idea is to start new pilots on Pipers so they'll keep buying them.

“The PiperSport is an amazing entry-level aircraft that will bring new customers into Piper and lead the way for those customers to step up into more sophisticated and higher performance aircraft within our line over time,” Gould said.

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# Wipline Floats For The Quest Kodiak



Quest Kodiak with Wipline 7000 floats.

SOUTH ST. PAUL, MINN. (FLEMING FIELD) - Wipaire is making steady progress on certification of their Wipline model 7000 float, designed for the Quest Kodiak. The innovative float structure received FAA approval in early

December via a Technical Standard Order authorization, or TSO. With the FAA's approval of the structure and design confirmed, Wipaire engineers are turning their full attention to the completion of flight testing, and expects full approval

of the installation in the 1st quarter of 2010. Aircraft are currently on the ramp awaiting the Supplemental Type Certificate approval and installation of Wipline 7000 floats.

The Quest Kodiak, designed to access short, unimproved back country strips, coupled with Wipaire's new 7000 floats, will whisk passengers to the most remote lakes and rivers in safety and comfort. The hulls of the Wipline 7000 floats are modeled after the successful Wipline 13000 floats, which have improved rough water handling qualities and also include the traditional Wipline "flat top-deck" for easy loading and safety. A completely redesigned main gear system keeps maintenance simple and reliability high. These features and many others make this the most advanced and feature-rich float produced to date.

For 50 years, Wipaire has developed a full line of aircraft floats for all sizes of aircraft from the Piper Cub to the de Havilland Twin Otter as well as over 100 Supplemental Type Certificates for a variety of useful aircraft modifications. In addition, Wipaire is a service leader in other areas, including aircraft maintenance, avionics installation and repair, custom interior design and installation, and exterior refinishing.

Wipaire is located at Fleming Field, South St. Paul, Minnesota.

For additional information, contact Wipaire, Inc. at 651-451-1205 ([www.wipaire.com](http://www.wipaire.com)). □



## Skiplane Flying Takes Bite Out of Winter

Elroy Hilbert

Luscombe 8A on takeoff.

Story by Allen Penticoff

**I**t has been a long held desire of mine to fly a Luscombe. For years I had a grey tee shirt with yellow letters declaring “Luscombe – No Wood No Nails No Glue.”

But in 40-plus years of active general aviation flying, I never had the opportunity to actually sit in a Luscombe, much less fly one. I would talk to pilots at various fly-ins and they always said “sure, I’ll take ya sometime,” but like “see ya later,” none ever came to fruition.

Likewise, I had long harbored a desire to fly a plane on “skis.” A friend had a set of skis, but never put them on any of his Cubs. I would see skiplanes around places and of course see them in magazines, but again, the chance to fly an airplane with skis never really crossed my path.

Part of the problem is, that despite having winter weather here in northern Illinois, our airport has plenty of plowed out pavement to fly from in the snowy times, so there is little inspiration for local aircraft owners to install skis on their planes. This is pretty much true at most airports – even the turf runway places get plowed so wheeled aircraft can use the runways without difficulty.

In chatting with a pilot friend, Greg Manuel, one snowy day, I mentioned my desire to fly on skis. He said



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he knew of a local instructor, Elroy Hilbert, who gave dual instruction in a Luscombe 8A on skis. *Wow!* I can check off two things on my “bucket list” at once. The timing was right, our weather had left us with plenty of snow, but not too much; even a recent couple inches of powdery snow on top of a solid base. I got in touch with Elroy through email, and we kept an eye on the weather with a tentative date, New Years Eve, when he could fly. My enthusiasm led Greg Manuel to also arrange for his teen pilot son, Richie, to get two hours of ski dual later the same day.

On the eve of the fly date, the weather looked good. We just had a snowy day, but it was to stop overnight. In the morning we had low visibility, marginal VFR, but the radar picture on the Weather Channel showed a large area of clear sky spinning our way. A brief call confirmed we would go for a morning flight.

I found Elroy at his Cottonwood Airport (1C8, Rockford, Illinois) hangar preheating the engine and instruments. Since it was a balmy 30 degrees out and his unheated hangar was probably colder still, I was glad to see him doing this. His Luscombe, being a 65 hp 8A, does have some “glue” involved in the construction of its flapless fabric covered wings. His Luscombe is a working plane, not a cream puff, with slightly scruffy paint and taped up seats. But mechanically, it is in great shape as he is an A&P mechanic as well.

To get the Luscombe out of the hangar, he had a system of galvanized steel water pipes to roll the skis on, reminding me at once of the ancient Egyptians rolling great blocks of stone to the pyramids. When the time came to roll the Luscombe out, the system worked great. In a later conversation, Elroy had revealed he had a set of lever-operated wheels for it, but he found they were difficult to work with compared to the pipe roller system. I know many skiplanes are simply kept outdoors, ready to use, or in hangars without doors where the snow piles up under the plane sufficient to taxi away. Also, some skiplanes have “wheel-skis” where the wheels retract, or are left slightly exposed below the ski.

There is no electric starter for the simple A65 engine, but the preheated little Continental popped right off after Elroy flicked the prop through a couple of blades by gloved hand. Of concern when starting the plane this way, was that there are no brakes on skis. However, the resistance of the snow to the movement of the skis kept us in place easily. Once the temperatures came up, it was evident as Elroy taxied us to the runway, that it takes a fair amount of power to get the ski-equipped plane moving, so having no brakes when hand-propping the plane, was not an issue unless you had a throttle runaway.

Elroy Hilbert’s 1946 vintage Federal skis have been rebuilt with plastic bottoms. This stuff is fairly slippery, but with proper sizing, they don’t have a tendency to slide for long

distances. This was evident in the practice taxiing I did down the 300 foot wide runway.

At Cottonwood, Elroy and other skiplane owners have insisted that the runway stay half natural snow, half plowed. Since the runway is exceedingly wide, this is not a problem. Except – keep this in mind if you are landing at a winter bound private turf strip – the snow may be deep on one part of the runway, even though someone on the radio claims the runway to be plowed. A low pass might be in order, particularly on cloudy days or during times of reduced visibility. Also, check NOTAMS, as the airport, like Cottonwood, might be technically closed to public operations, despite locals operating from it. Ask more questions or be exceedingly cautious.

We hugged the west side of the runway while taxiing to minimize the tracking of the middle portion of the runway at Elroy’s request. His Luscombe has a ski on the steerable tailwheel (which not every skiplane has), making turning rather easy. (There are ski-equipped tri-gear aircraft as well.) But turning takes a rather wide arc, particularly when one takes into account the much more pronounced tendency to weather vane.

Elroy told me that if dealing with a stiff crosswind, it may not be possible to bring the tail up into the wind in a 180-degree turn, so you have to keep that in mind and use the wind to your advantage to make turns when you can.

Although we did have crosswind conditions throughout the flight, and I could detect the weathervaning to be starting, I was easily able to maintain the straight course we needed or to make the runway end turn-arounds.

Hugging the edge of the runway, or even going off into the adjoining areas, was usually standard procedure. You do have to remember that the brakes are of no use to you while turning, and there is no “spinning around” on one gear either. But due to the completely foreign nature of

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Elroy Hilbert

Friends gather on a popular lake.

ski flying, I felt no urge to use the brakes or revert to wheel gear thinking.

In fact, skis open up a whole new world of possibilities during winter flying. Fields and lakes, and sometimes rivers, become airstrips, everywhere. Areas no wheeled plane would dream of going, become a new airport. Landing in that field next to the roadside café works just fine (with permission of course). Those lakeside restaurants are new fly-out destinations. Engine failure induced forced landings now are a less risky event as there are so many new places you can land, safely, without damage to the plane. Low altitude flight becomes somewhat safer with all the new landing areas available too. Elroy has firsthand experience with this in someone else's aircraft.

Overall, there is much more of that "bush flying" experience that comes with flying a stick-controlled classic plane on skis. The Luscombe's legendary "twitchiness" landing on wheels was nowhere to be seen while on skis. In fact, I've been told that in the olden days, pilots who learned to fly a Cub in the winter, on skis, had to relearn landing when the wheels went back on in the spring, as they tended to bounce, when the ski-equipped Cub rarely does.

Elroy made the first takeoff to demonstrate the difference from wheels, then turned the controls over to me.

The first of my many landings came at a private farm strip a few miles west of Cottonwood. With a stiff northwest wind, we had building and tree induced turbulence to deal with and a bit of crosswind to boot. The weathervaning was there, but no worse than any other crosswind landing in a high-winged light aircraft. The skis plopped down level, with no tendency to bounce. Ski landings are a piece of cake. The skis tend to track straight ahead quite well, and we slowed quickly, probably slower than on wheels, but not decelerating as fast as a seaplane either.

Skiplane flying is somewhat more like seaplane flying than wheel flying. The farm strip was a much narrower runway to turn around on, so this was a case of going off the edge a bit at the turn-around to complete the turn. Elroy insists on plenty of forward stick to pin down the skis and lift the tail a bit in the turn around.

It's not a time to be shy with power to get around. It takes a healthy dose of thrust to keep moving and rudder

the tail around. Sometimes we just kept the power up and swiveled right into the takeoff run.

This was my first ski takeoff. Lift the tail as normal, but rather like a seaplane, there is a sweet spot where one transitions from running flat on the skis to sort of skimming the snow before rotation and lift off can occur. This took a bit more forward stick than would normally be expected with a tail-up wheeled run, though some recommend a "soft field" takeoff technique to lift off as soon as you can.

Depending on snow conditions, a ski takeoff run can be considerably longer than one on wheels. Usually about the time I found this sweet spot, we would cross some hump in the runway and the Luscombe would be ready to fly, so we briefly kept a nose-low attitude in ground effect to gain



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some speed before commencing the climbout.

Another landing at the farm strip, then Elroy did a couple landings on a small lake, then off to some other places to land.

The weather was trying to clear in our area, but as we flew east towards the Poplar Grove Airport, it became overcast again with 4 miles in hazy visibility. This is significant, as without the sun shining, there is no contrast on the snow, creating a whiteout condition. We did not have a true "whiteout," where no horizon is to be had, but we had a condition more akin to a seaplane experiencing what is called a "glassy water landing."

In a seaplane, you're instructed to throw a life jacket out on the smooth surface of the water to have some sort of reference point for your height above the surface. With the wide expanse of water and no waves, it is very difficult to judge your altitude visually. The landing technique is to establish a nose-high attitude with a slow rate of decent and simply wait until the touchdown happens. At Poplar Grove Airport, with a huge white expanse to land on, and no sun, the lack of visual reference for a landing was definitely apparent as the time to flare approached.

Applying my seaplane training for a glassy water landing, (but having never actually experienced one), I waited, and added and reduced power.

It seemed to be taking forever for the runway to greet us. Then, somewhat off-guard, we touched down and I pulled the rest of the power off. Fortunately, the east-west runway is quite long and plenty of room remained. The second landing to the same runway had the same eerie experience, with only our own tracks as a brief but nearly useless reference. I had not been able to use our own previous tracks as a reference because I could not see where they were until well into the flare/descent and they were too far off the left side to try to move over to. But if one knew of any tracks and could set up on them, it would be helpful.

After a brief potty stop and pilot chat in someone's warm hangar, we headed back to Cottonwood. The sun was out in full there, and the landing was a greaser, or is that a "slider" in a skiplane. Taxiing to the gas pump, we surmounted a fair sized snowdrift with ease that would have brought a wheel-equipped plane to a halt. My dream flight had been completed. After discussing ski stuff with another aircraft owner who had a set to put on his experimental, 250 hp, Piper Pacer, off we went to meet up with Greg and Richie for lunch before Richie's turn at this fascinating fun way to fly.

This was not full and complete training in the wiles and ways of ski flying. Different conditions make for different techniques of dealing with the snow. Oddly, some of the most

important things about flying on skis are where and how you stop the plane. Getting stuck to the snow or sinking in, is all too common, so techniques need to be learned to avoid problems getting going. As for landings, I know one of the more serious conditions to look out for, is the dreaded heavy crust on top of deep, soft snow underneath. To break through the top crust, and then have the sudden drag of that icy layer against the landing gear, can lead to the aircraft overturning. Very deep snow could have similar results. Not good. So getting a report on conditions is a must if you don't know firsthand what they are – you certainly can't tell from the air. You must also know that the ice will support the weight of the aircraft if you plan to land on any frozen water, and bear in mind that there can be hidden thin spots. All this is stuff that one would approach by spending more time with experienced skiplane operators.

There is no "rating" or even a sign-off for ski flying. And to the best of my knowledge, not one word in the F.A.R.s about it either. You are not exempted from any regulations, but your new freedom requires proper courtesy before using property otherwise not designated for flying operations. Insurance companies usually want to know if you are putting your plane on skis, and may issue a policy endorsement that has restrictions on where you may operate your skiplane. Know before you go.

Since skis are fairly easy to install and remove, the FAA allows owners to install them with only a logbook endorsement. But if you are not familiar with the set up, you may need to have a mechanic do the work the first time, especially if any hardware needs installation. If you have never had skis on the aircraft, you will have to have an I.A. sign off the work as there is STC paperwork involved. But once you have your plane set up for this special winter flying, you will be looking forward to snow covering the land, rather than dreading its arrival. □

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# Commercial Pilot Receives 160-Day Suspension For Altitude Deviation

by Greg Reigel  
Attorney At Law



Greg Reigel

The NTSB has affirmed an administrative law judge's ("ALJ") decision to impose a 160-day suspension of a commercial pilot's airman certificate for a 500-foot altitude deviation. In *Administrator v. Saghafi*, the FAA alleged that the airman was flying at flight level (FL) 170 when air traffic control (ATC) instructed him to climb and maintain FL 180. According to the FAA, the airman apparently ascended to FL 180, but then descended to 17,500 feet, which resulted in a loss of separation between the airman's aircraft and another aircraft. The FAA issued an order suspending the airman's commercial pilot certificate for 180 days for violations of FARs 91.123(b) (failure to comply with an ATC instruction) and 91.13(a) (careless and reckless).

The airman appealed the order to the NTSB. After an evidentiary hearing, the ALJ affirmed the FAA's order, but reduced the suspension down to 160 days based upon the airman's completion of additional training. Although the airman had filed a report under the Aviation Safety Reporting Program (ASRP), the ALJ determined that the airman was ineligible for waiver of sanction since the airman had received another ATC violation within the preceding 5 years. The airman then appealed the ALJ's decision to the full NTSB.

On appeal, the airman argued that the ALJ erred in allowing an FAA inspector's opinion that the airman had acted in a careless or reckless manner, because whether he acted in a careless or reckless manner was a legal conclusion about which the inspector was not qualified to testify. He also argued that the inspector's testimony that he "deliberately" deviated from the ATC instruction was incorrect because the airman did not hear the instruction. With respect to sanction, the airman argued that a 160-day suspension was excessive, because it was based on a finding that he acted in a careless or reckless manner. He further argued that it should have been mitigated by the fact that he had a sick passenger on board, that he incorrectly heard the ATC instruction, that he had had no additional violations, and that he had taken affirmative steps to prevent such miscommunication in the future.

In rejecting the airman's appeal, the Board initially observed that the airman had not shown that the ALJ erred by allowing the inspector's opinion that the airman had acted in a careless or reckless manner. It then went on to note that the airman did not appear to dispute that he violated FAR 91.123(b) when he failed to maintain FL 180 and, as a result, that violation supported a violation of FAR 91.13(a)

as a residual violation. Additionally, the Board found that the airman's "admitted act of turning around to assist his sick grandson while encountering turbulence amounts to a violation of § 91.13(a)." As a result, the inspector's testimony, even if in error, was not dispositive of the issue.

With respect to sanction, the Board began by observing that the ALJ had already considered the airman's mitigating factors when he reduced the sanction from 180 days down to 160 days. It then noted that the sanction was within the guidelines established in the FAA's Sanction Guidance Table (Appendix B to FAA Order 2150.3B) and that the Board must defer to the FAA's choice of sanction. Finally, the Board referred to its precedent that failure to adhere to ATC instructions is a serious violation and the airman's "conduct on the flight at issue could have led to a sobering outcome." Consequently, the Board affirmed the sanction, as well as the violations.

This looks like it was an unfortunate set of circumstances for the airman. In hindsight, it raises several questions, at least in my mind. When the airman reached FL 180, why didn't he engage the autopilot and then deal with his grandson? (Having had a similar situation with my son, I can sympathize with the airman having to deal with a sick, young passenger. However, the aircraft and the FAA can be very unforgiving. You have to fly the airplane first.)

What were the circumstances of the airman's prior ATC related violation? Why wasn't the airman using proper radio phraseology and procedures? (I suspect, and mind you it is only a suspicion, that communication issues may have been involved in the previous violation.) Finally, would the sanction have been less if the deviation had not resulted in loss of separation? (Probably.)

What can we learn from this case? First, it is imperative that proper phraseology and radio procedures be used to ensure that communications are clear and understood. Second, when problems/distractions arise in the cockpit, flying the airplane should remain the pilot's first priority and only then should the pilot try and deal with the problem/distraction.

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# "Blakesburg"

by Paul Berge

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The sound, like distant gunfire, tapped in uneven beats – *pap...pap-pap...* One eye cracked open, and I awoke to stare up at a full moon robbing the clear night sky of its blackness. By the time the other eye opened, I realized that the sound – *pap...pap-pap-pa* – came from dewdrops rolling off my biplane's upper wing and striking the lower one. And there were hundreds of these drop strikes all around, because we were camped in a row of biplanes at Antique Airfield (IA27) near Blakesburg, Iowa, home of the Antique Airplane Association (AAA) and the Air Power Museum (APM). This was its annual Labor Day weekend invitational fly-in.

Of course, this same dew also thoroughly soaked our sleeping bags, making it tough to go back to sleep. So, wet, cold and entranced I lay there looking around at dozens of antique airplanes with their tails in the grass. Moonlight washed over the Fleet biplane to our side, its owner asleep beneath a wing. Behind us Jim Jones' red Meyers OTW glowed deep scarlet in the moonlight; beside it was Captain Downey's Navy flagged OTW. Further down the line I could



Dr. Brent Blue

make out three Travel Airs, two model 4000s and a rare 4-D. Several Stinsons, Fairchild's and Wacos, both open cockpit and closed cabin, added to this ghost line as though someone had forgotten to tell them that the 1930s were gone.

That's the beauty of Blakesburg. It's a year-round fantasy airfield where pilots can escape the modern world. Although the fly-in is a members-only event, anyone is welcome to join the AAA and participate. You can even drive in. There's adequate parking with limited room for RVs (the road kind as well as Van's Aircraft RVs). Officially the fly-in is called a reunion, since hundreds of AAA members arrive from all over the country to spend a few days reacquainting with old friends and family, while their airplanes do what antique airplanes do best – *fly!*

AAA's mission is to "*Keep the antiques flying.*" This year, 369 antiques, classics, warbirds, neo-classics and homebuilts gathered to fulfill that mandate, making this, according to fly-in chairman, Brent Taylor, "*the best attended five-day event in Antique Airfield's history.*" Each flying machine brought along at least one human to wipe bugs from its windscreen. As Homeland Security constantly reminds us, humans can be an impediment to flight, but antique airplanes have survived in a hostile world by learning to live in harmony with those humans who recognize the dignity of Joe Shepherd's 1936 Lockheed 12A, or the timeless elegance of the APM's Ryan STA.

## Dawn Patrol

I don't remember falling back to sleep, but the next sound I heard was the *clack-clack* of a magneto impulse coupler as someone pulled a propeller through by hand. I know that sound, having flown and taught behind little Continental engines for decades. Without opening my eyes, I could picture the pilot who now called, "*Brakes on, switch on, throttle cracked.*" And when an unseen someone else swung the propeller, the clacks turned to a crisp bark as 65 horses rapped to life. I opened my eyes. There, beyond the row of classic Cessnas – 195s, 170s and a C38



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Airmaster – a lone Aeronca Champ taxied out. Dew streamed across its windshield. The pilot's unkempt hair rustled in the prop-blast through the open window. He needed a shave and probably had bad breath, but being on a mission to be the first one airborne, morning ablutions could wait.

I rolled onto my side, damper and colder than I had been hours earlier. My wife stirred with, "Who's that?" I assumed she meant who's in the Champ and not who was beside her in the sleeping bag. I shrugged and said I didn't know, just someone out to break the dawn for the rest of us. She rolled back to sleep muttering something about how it had been my idea to skip the tent and sleep on the grass like a barnstormer. Actually, after sitting up the night before drinking wine outside the Pilots Pub while talking airplanes with Bette and Jon Fineman, I'd somehow failed to see the need for a tent.

The Champ taxied past WWII vintage Stearmans lined up like silent linebackers and behind a row of Howard DGAs. DGA means, "Damned Good Airplane," and to look at the stocky machines with their radial engines, you knew not to question them. Or at least not disturb their sleep, which this upstart Champ now did as it passed the limp windsock and reached the end of the runway. There, the pilot ran the engine up and checked the "mags." I suspected he hadn't called Flight Service for a briefing, because they probably wouldn't understand what it meant to fly at Blakesburg. "What's your destination?" they'd ask.

"I dunno," the pilot would've answered. "Up, I guess."

The briefer would've replied, "What altitude?"

"Oh, 300 feet..." I would say.

So why bother calling? Sure, TSA might've smeared a TFR across the airspace overnight, but government-induced fear alone can't keep antiquers on the ground when the dawn peeks between the trees, and a thin layer of radiation fog hugs the

gullies, begging to be skimmed.

As the Champ pilot opened the throttle, another Dawn Patroller started up. Soon, the morning chattered with little airplanes – Cubs, Chiefs, T-crafts and Luscombes – pecking about the grass before jumping into the sky. There was no ATC or any hint of authority to ruin the moment.

Antique Airfield is a private airport owned by the Air Power Museum and the Taylor family. Patriarch, Robert Taylor, recipient of the FAA's 2008 Charles Taylor Master Mechanic Award<sup>1</sup> and an Iowa Aviation Hall of Fame inductee, founded AAA in 1953 and co-founded the APM in 1965. That vision, supported by legions of volunteers, led to what now played out on these 177 acres of southern Iowa hill country.

Fly-ins have been held at Antique Airfield since 1971. The north/south grass runway is 2350 x 85 feet, has a few bumps, a fence at the south end and forest off the north end where there's an interesting bit of a hill, making this course a playable par 4. Field elevation is 904 feet and pattern altitude is 700 feet above that with left traffic. Watch for impromptu aerobatics and lots of formation flying in the local area; all pilots adhering to the Federal Aviation Regulations (FARs), of course.

While many antique airplanes have radios and GPS, some mystical force disables such distractions here. Instead, pilots fly the old fashioned way by looking outside for traffic

or shadows, and each approach includes a ready go-around should the airplane ahead fail to clear the runway in time. To get an armchair feel for the in-flight experience, go to YouTube and look for a six-minute video short by producer and antiquer, Joseph Pundzak, called, "Living The Legend"<sup>2</sup> (Available at AAAAPM1 on YouTube).

Air traffic order is maintained through common sense, airmanship, plus, some red and green flags that constitute a premier semaphore ATC system. In the spirit of Archie League, the nation's first air traffic controller, who flag-controlled air traffic at St. Louis in the early 1930s, Blakesburg stations a controller at the approach end of the runway armed with two flags – one red, one green. Green means cleared to land or take off, and red means don't do either. When chief air traffic controller, Bob Grimm, throws his baseball cap at you, it means, "Next time, watch my flags!" The FAA likes to tout its futuristic, multi-billion dollar NexGen ATC, but for about 20 bucks, you get AAA's FirstGen ATC, and unlike the FAA's system, it never has labor/management issues.

## Theme Park

The AAA fly-ins haven't always had a theme, but last year members celebrated the 90<sup>th</sup> anniversary of the first scheduled U.S. Air Mail flight. For 2009, the theme was "Corporate Wings." Don't worry, no TARP

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bailout money was used to finance the many antique corporate airplanes in attendance. In a year when grandstanding Senators dragged the larger corporate flight world beneath the political bus, AAA saluted the long history of business aviation. Of the 25 "theme" aircraft in attendance, 14 were Howards. Among the 14 Howards present were Jim Younkin's "Mister Mulligan" from Springdale, Arkansas, and Dennis and Susan Lyons' Howard DGA-15P, "Archibald B," from San Miguel, Calif.

Included in the non-Howard corporate mix were: Rich Hornbeck's Waco ASO, "Texaco Number 7" from Bowdoinham, Maine; Chuck and Jody Doyle's Beech D18S, "North Carolina Pulp Company" from Webster, Minn.; John Swander's Waco UEC, "Viking Flying Boat Company" from DeSoto, Kan.; and Larry Howard's "Berry Brothers" Laird LC-1-B, from Spokane, Wash. Tom and Elaine Huf returned again this year from Kinglsey, Pa. with two entries – Tom's "Berghoff Brewery" Cessna T-50 Bobcat, which qualified for Corporate Wings, and Elaine's pink Aeronca L-16, which simply looked adorable.

Russ Williams flew from Bellvue, Wash., in his Firestone Rubber & Tire Company Ryan SC-W. Theme or not, Williams makes the trip every year. He's the AAA/APM webmaster, and you can see his work, as well as extended video and photo coverage of the fly-in, at [www.antiqueairfield.com](http://www.antiqueairfield.com).

## Champions All

Sunday night is awards night when an old, gray-haired master of ceremonies with ill-fitting reading glasses mispronounces the names of those airplane owners who've poured gobs of money, time and love into their priceless machines. Trophies and plaques were presented by first-time assistant master of ceremonies, Shayln Applegate, whose family owns a 1936 YKS-6 Cabin Waco, based at Applegate Airport, Queen City, Mo. The Applegate's Waco, plus their J-3 Cub and Pober Pixie, were on display.

Here is a partial list of award recipients: Antique (pre-1936) Sweepstakes Award went to Larry Howard's Laird LC-1-B.

Classic (1936-1941) Grand Champion was Ed and Geri McKeown's Rearwin Cloudster. Jim Wheeler's Waco YQC took the Classic Sweepstakes Award.

Warbird (1941-1945) Grand Champion was Ted Miller's Stearman N2S, while Fred Lundeens' Howard DGA-15 took home the Warbird Sweepstakes Award.

Neo-Classic (1946-1956) Grand Champion was Tim Lynn's Cessna 195. The Neo-Classic Sweepstakes Award went to Cynthia Grant's Luscombe 8E. Cynthia also picked up Best Bride of the '09 Reunion, because she and Howard Hollinger were married at Antique Airfield on Saturday.

Homebuilts were honored with Don

Bates Starduster II picking up Grand Champion and Jim Younkin's Mister Mulligan gleaning the Homebuilt Sweepstakes Award.

Controversy ensued when the award for "Youngest Pilot To Arrive in a Pre-1956 Airplane" went to David Bates, 22, of Fairbault, Minn., flying a custom 450-hp Stearman. While David certainly qualified, the judges inadvertently overlooked Amy Gesch, 18, who flew Steve and Sharon Krog's 1938 Piper J3 Cub to Blakesburg. The judges have since declared co-winners of this award with hopes that both Amy and David will return next year.

The Grand Champion Award is always presented by AAA founder and president, Robert Taylor. This year the prestigious award went to D.J. Short, of Warrensburg, Mo., for his OX-5 powered, 1929 KR31 Challenger.

With the ceremonies over and the runway closed for the night, the crowd headed to the Pilots Pub, conveniently located 30 feet from the awards stage. Sadly, a much-anticipated musical encore performance by Doug Rozendaal on vocals and guitar singing, "Leaving on a Biplane," did not happen. Those who caught Rozendaal's act the previous night are still in awe, while Doug's whereabouts are still unknown.

Sunday evening soared toward another dew-covered dawn as the remaining antiquers crawled into sleeping bags and drifted off with images of biplanes dancing in their heads. Or, maybe, just wishing they'd brought a dang tent. And should you ever awake in a field full of antique airplanes, it could be a dream, or it just might be *Blakesburg!*

**EDITOR'S NOTE:** Paul Berge is on the AAA National Board of Directors. His new aviation novel, "Inside The Circle," set in 1937, is available at [amazon.com](http://amazon.com).

<sup>1</sup>Robert Taylor is not related to Charles Taylor, who was the Wright Brothers' mechanic. In 2009, Robert Taylor received the EAA Founder's Award from Paul Poberezny: [www.eaa.org/news/2009/2009-09-10\\_taylor.asp](http://www.eaa.org/news/2009/2009-09-10_taylor.asp)  
<sup>2</sup>"Living The Legend" link: [www.youtube.com/watch?v=OXWZ4oN-BjY](http://www.youtube.com/watch?v=OXWZ4oN-BjY) □

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|  <p>Tom &amp; Renee Watry<br/> Wisconsin Aviation Business of the Year (2005)</p>                                                                                                                                                                                                                                           |            |                |



Tommy Georges with his propeller-making machine.



This "T-Bird" was one of the Light Sport Aircraft that flew in to Tommy's Sangchris Lake AirPark. It was built in Iowa by Golden Circle Aircraft, and is owned by Ken Aderman of Lincoln, Illinois. [www.americaero.us](http://www.americaero.us)

## 19<sup>th</sup> Annual EAA Chapter 88 Midwest Ultralight/LSA Rendezvous

by Jim Bildilli

**O**n August 28-30, 2009, the 19<sup>th</sup> Annual Midwest Ultralight/LSA Rendezvous was held at Tommy's Lake Sangchris Airpark (9LL5), located a few miles southeast of Springfield, Illinois. The 2700 x 100 ft. turf "airpark" provided the perfect setting for a summer fly-in for aviation enthusiasts. With no landing, parking or camping fees, it is an excellent location for the perfect weekend get-away. Whether you flew or drove-in, there was an eclectic mix of aircraft ranging from powered parachutes, to the standard "heavy metal" variety to be viewed and admired.

Although it was a little on the breezy side for lighter aircraft on Saturday, over 50 aircraft owners braved the winds to drop by for the day, and over 100 people attended Saturday evening's spaghetti dinner.

Although Tommy Georges provides the location, EAA Chapter 88 – "The Midwest Ultralight Crophoppers" – sponsors the annual event. The Crophoppers' current project is the restoration of a KR-2 aircraft, which they plan to display at local parades and events.

If having the camaraderie of fellow aviation enthusiasts is not enough, you can see the myriad of projects currently underway, including aircraft and machinery that was designed and constructed by Mr. Georges. Of particular interest is his propeller-making machine, which can produce aircraft propellers up to 10' in length. Without the use of modern-day computer guidance, the machine will replicate a propeller from a "model," using a 10-inch saw blade and an intricate system of gears and switches. In fact, part of the machine incorporates an old Genie garage door mechanism to move the saw blade from one end of the prop to the other.

With a little cooperation from the weather, Chapter 88 is anticipating that this year's 20<sup>th</sup> Rendezvous will be the largest ever. The fly-in is always scheduled on the weekend prior to Labor Day, so mark you 2010 event planner and plan to bring your camping gear for a wonderful weekend. As usual, there will be activities for kids as well. The "paper airplane" contest and the "candy drop" are always favorites.

For those of you who would like to broaden your aeronautical knowledge, Mr. Georges teaches a 16-hour repairman course for Light Sport Aircraft. Taught in June and October, details can be obtained by visiting [www.americaero.us](http://www.americaero.us). □



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# Aeronautics Report

Wisconsin Bureau of Aeronautics

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## Are You Proficient? - Or Just Current?

by Jeff Taylor

Aviation Consultant, WisDOT Bureau of Aeronautics

What was your first thought the last time someone asked you to fly an airplane? Was it, "Am I current?" If it was, you



Jeff Taylor

are probably not alone. Typically,

pilots begin to compare what their currency status is in relation to the FAR 61.57 Recent Flight Experience, which lists the number of takeoffs and landings or the number of instrument approaches required in a given time period. Pilots also check FAR 61.56 Flight Reviews, which lists the minimum training requirements for your pilot certificate.

While being current from an FAA legal standpoint is always important, shouldn't we ask more of ourselves?

In addition, don't our passengers assume we are doing more than maintaining the bare legal minimum requirement of competency?

Looking back at how I was trained, and how I trained student pilots, I am not surprised by this pattern. During the early stages of our aviation experience, we all became very well versed in reading the regulations and learning the minimum requirements for each certificate. In fact, during the practical exams for a certificate, the examiner probably quizzed you on these minimums. Unfortunately, their

intent was misunderstood. It was not to reinforce that you only need three takeoffs and landings every 90 days, but rather to emphasize that this is the FAA's *bare legal minimum*.

***What can we do to move beyond staying "legally current," to improving our proficiency as pilots?***

First, take a conservative approach when assessing your individual level of proficiency. Several studies have shown that skill loss in some of the most important phases of flight (landings, unusual attitude recovery and crosswind takeoffs) occur much sooner than most pilots expect. Additionally, and particularly concerning, these studies show that we are not very accurate at assessing our level of proficiency. Overestimating our abilities is not just a pilot trait; it is a very common human characteristic.

Practice makes perfect. Better yet, perfect practice makes perfect. We have all heard these sayings and they became clichés because they are true. There is no greater benefit to your proficiency than practicing the skills you need the most. While cost is always a factor, there are economical tools available for you to practice your piloting skills.

Flight simulators have come a long way in providing a realistic flight experience. Several flight simulation programs are available for use on



Dave Weiman

Flight simulators help pilots to retain proficiency.

a home PC that allow you to fly an assortment of aircraft in almost any weather. For those who do not want to use a computer, the least expensive flight simulator is "chair flying." Find a quiet room, not just to allow you to concentrate, but to keep others from staring; then sit down and visualize a flight. It is an extremely effective tool for building habit patterns and preparing you to maximize your flight time. Props can help; a photo of your cockpit panel is a great visual aid.

While flight simulators can be a valuable tool, it is important to use them appropriately. Treat them like an aircraft. To gain the maximum benefit from your flight simulation experience, play the game and truly act as if you are in an aircraft. Also, make sure you are practicing correctly. Review flight manuals, discuss procedures with a local CFI, and verify that your procedures are appropriate. While you might look a little funny "play acting" flying, the benefits far outweigh the kidding; your potential passengers will probably appreciate your conscientious efforts.

Flying an airplane is not like riding a bike. Pilots today need to maintain knowledge and proficiency in a wide range of skills to conduct a safe flight.

Respect the fact that your skills as a pilot need to be nourished on a consistent basis and never assume that just because you are legally current,

you are also safe. Listen to that little voice in your head when it suggests you need more practice. It is talking for a reason. □

## Upcoming Aviation Seminars In Wisconsin

### Mechanics Refresher & Inspection Authorization (IA) Renewal Seminar

This year's Wisconsin Department of Transportation "Mechanics Refresher & Inspection Authorization (IA) Renewal Seminar" training seminar will be held in Stevens Point, Wisconsin on March 6, 2010 at the Holiday Inn Hotel and Convention Center. WisDOT holds the refresher course annually for A&P mechanics with inspection authorization that need to fulfill their annual training requirement. Approximately 30 vendors will be available to discuss their products during breaks.

Registration is \$28, which includes lunch. More information can be found on the WisDOT web site at: <http://www.dot.wisconsin.gov/news/events/air/aviation-mechanic-seminar.htm>

For attendees wishing to receive credit for the FAA AMT Awards Program, register at: [http://www.faasafety.gov/SPANS/event\\_details.aspx?eid=28704](http://www.faasafety.gov/SPANS/event_details.aspx?eid=28704)

### Flight Instructor Refresher Course (FIRC)

The Wisconsin Department of Transportation and Gateway Technical College will co-sponsor a "Flight Instructor Refresher Course" (FIRC),

March 13-14, 2010 in Kenosha on the Gateway Technical College campus.

The course was recently revamped with a strong emphasis on scenario-based training and the new FAA/ Industry Training Standards (FITS). Training under FITS has become an emphasis for the FAA to develop flight training programs that are more convenient, accessible, relevant and less expensive for today's pilots. The course is open to certified flight instructors whose certificates expire in March, April, May or June of 2010. Other pilots can audit the course at a reduced fee and receive a certificate of completion. For more information, visit the WisDOT web site at: <http://www.dot.wisconsin.gov/news/events/air/firc.htm> □

## PIREPs... Pilot Weather Reports

The very best weather information a pilot can get is by talking to a pilot who was just there. As a group, pilots are usually very helpful with each other and willing to share information.

### How To Put PIREPs Into The System

The best way to get PIREPs into the system is via Flight Watch, FAA's real time weather service for pilots. A pilot can usually contact an EFAS specialist from 6 a.m. to 10 p.m. anywhere in the conterminous U.S. and Puerto Rico. The common EFAS frequency, 122.0 MHz, is established for pilots of aircraft flying between 5,000 feet AGL and 17,500 feet MSL. Contact Flight Watch and give (or ask for) PIREPs along your route of flight. If you are unable to reach Flight Watch, PIREP information should be

| PIREP FORM                                     |                                                                                                                    |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Pilot Weather Report → = Space Symbol          |                                                                                                                    |
| 3-Letter SA Identifier                         | 1. UA → Routine Report    UUA → Urgent Report                                                                      |
| 2./OV →                                        | Location:<br>In relation to a NAVAID                                                                               |
| 3./TM →                                        | Time:<br>Coordinated Universal Time                                                                                |
| 4./FL →                                        | Altitude/Flight Level:<br>Essential for turbulence and icing reports                                               |
| 5./TP →                                        | Aircraft Type:<br>Essential for turbulence and icing reports                                                       |
| Items 1 through 5 are mandatory for all PIREPs |                                                                                                                    |
| 6./SK →                                        | Sky Cover:<br>Cloud height and coverage (scattered, broken, or overcast)                                           |
| 7./WX →                                        | Flight Visibility and Weather:<br>Flight visibility, precipitation, restrictions to visibility, etc.               |
| 8./TA →                                        | Temperature (Celsius):<br>Essential for icing reports                                                              |
| 9./WW →                                        | Wind:<br>Direction in degrees and speed in knots                                                                   |
| 10./TB →                                       | Turbulence:<br>Turbulence intensity, whether the turbulence occurred in or near clouds, and duration of turbulence |
| 11./IC →                                       | Icing:<br>Intensity and Type                                                                                       |
| 12./RM →                                       | Remarks:<br>For reporting elements not included or to clarify previously reported items                            |

reported to the nearest FSS, approach or departure control, or the Air Route Traffic Control Center (ARTCC) controller. Remember, by providing

real time weather input to the system, you will be improving the quality of the weather information available to pilots following you over the same area or route. A good PIREP consists of the following information:

- Your type of aircraft, altitude, and location (ideally, in reference to a VOR or significant geographical landmark).
- Cloud cover, including base and top reports.
- Turbulence and icing.
- Visibility restrictions.
- Outside air temperature (OAT).
- Other significant weather data.

Although the PIREP should be as complete and concise as possible, pilots should not be overly concerned with strict format or phraseology. The important thing is to relay the information so other pilots may benefit from your observation. If a portion of the report needs clarification, the ground station will request the information. □



# WATA *Difference*

WISCONSIN AVIATION TRADES ASSOCIATION



Photos Courtesy of Rapco, Inc.



## The Vacuum System & How It Works

The vacuum system is made up of one or possibly two pumps, a vacuum air source filter, and a vacuum regulator with its own filter, vacuum gauge, attaching hardware and hoses. The vacuum pump is attached to the engine on an accessory pad and is powered by the engine. On most systems the pump pulls rather than pushes air through the instruments. A nozzle in the instrument case of the directional gyro and artificial horizon, directs filtered air from the source filter onto the gyroscope in the instrument, causing the gyroscope to spin. A spring-loaded regulator valve regulates the vacuum pressure, or lack of pressure. Since the pump creates more vacuum than the system needs (4.5 to 5.5 pounds per square inch of vacuum), the regulator valve is usually open slightly and admits filtered air through the vacuum relief filter into the system. A gauge is plumbed into the system to give the pilot a way to verify operation.

## Aircraft Vacuum Pump Maintenance... More Important Than You Might Think!

by Rich Morey

**V**acuum pumps fail. This is a fact of life that all pilots should keep in mind. The fact that the FAA requires applicants for the Instrument Rating to be able to fly a non-precision approach to minimums partial panel to simulate a failed vacuum system, attests to this. Losing a vacuum pump in the clouds can be an intense experience, requiring your full attention as a pilot. It also constitutes an emergency. Pilots who find themselves in this position should not hesitate to declare an emergency. Use the words "NO GYRO" as in "*N12345 is declaring an emergency; we are no gyro.*" Controllers know what no gyro means, but not all controllers are pilots, so telling them you "*lost your vacuum pump*" may result in some confusion.



Rich Morey

Staying sharp on your partial panel skills should be part of every instrument pilot's practice routine. Still, avoiding a vacuum pump failure is preferable to having to deal with one. To quote my father, "*An exceptional pilot uses his (or her) exceptional judgment to avoid having to use his (or her) exceptional skill.*" A little preventive maintenance, and paying attention to details can minimize your chances of a vacuum pump failure.

## Preventive Maintenance

The vacuum relief filter should be replaced on an annual basis. This will ensure that you are pulling clean filtered air through your Directional Gyro, Artificial Horizon and vacuum pump. Clean air will minimize wear on these components. In addition the vacuum source filter should be replaced every 500 hours of operation. The vacuum lines should be checked on an annual basis for condition. A cracked line could cause a leak, which could allow unfiltered air into the system. This could cause premature pump failure, low vacuum, or gyro instruments not spinning up.

## Maintenance At Pump Replacement

When you replace your vacuum pump, you need to do some additional maintenance. Both vacuum relief

valve and vacuum source filters should be changed. In addition, the Cessna service manual states: *"Before installing a new vacuum pump, purge all lines in the system to remove carbon particles or other pump components that may have been deposited in the lines by previous pump."* As a vacuum pump ages, the carbon/graphite vanes of the pump wear down. When a pump fails, parts of the vanes could be deposited in the lines. Not purging the lines may cause a failure of the new pump voiding your warranty. When you have a pump replaced, be sure to talk with your aircraft maintenance technician. Make it clear you want the lines purged and are willing to pay for this service.

### Consider Your Vacuum Pump As A Time Limited Part

Let's use the 200 series vacuum pumps as an example. The 200 series are standard on vacuum pump equipped single-engine aircraft. If you are flying in the clouds, you need to decide what you are comfortable with. I figure the manufacturer should know their product and would follow their hour limitation. If you have over, or are approaching 1000 hours on a RAPCO vacuum pump, or 1300 hours on a Tempest vacuum pump, you should be thinking about replacing it. On the other hand if flying an approach to minimums partial panel is not something you want to be worrying about the next time you are in the clouds, you may want to replace your pump earlier. One of my friends swaps his vacuum pumps out every 500 hours. He considers it cheap life insurance, and I can't fault him for it.

According to Michael Lotzer, National Sales Manager at Rapco, Inc., as a general rule of thumb, pumps last longer on 4-cylinder Lycomings over their counterpart TCM Continental 6-cylinder models because the pump is turning faster on the TCM 6-cylinder, than it does on the 4-cylinder engine drive. On some



of the 4-cylinder Lycomings, Rapco has seen pumps go longer than 2000 hours if they are cared for properly by changing filters annually, and blowing out the instrument lines annually, along with ensuring that there are no engine oil leaks ahead of the pump on the pump spline drive, and exhaust heat problems near the pump. Wear life is directly proportionate to having adequate air flow through the vacuum pump. A sticky regulator or clogged de-ice valve can cause the pump to over heat and shorten the life of the pump significantly.

Rapco incorporates a wear indicator hole on the side of the pump

on all of their new pump models. This hole has a cap screw that can be removed after 500 hours of flight and inspected every 100 hours thereafter, giving the aircraft operator added insurance of the life left on the pump.

### Other Options

Installing a standby vacuum system makes sense for those who spend a lot of time flying in instrument conditions. If you go this route make sure you know how the system works, and test it regularly. The electric driven standby vacuum systems are more expensive than the manifold type, but simpler to operate. A panel mounted or handheld GPS makes flying partial panel much easier, as it gives you a near instant track readout.

An electric Artificial Horizon simplifies partial panel workload greatly, at least until you have an alternator failure! Remember that all the redundancy in the world won't do you any good unless you spend the time practicing. Being current does not always mean you are proficient! ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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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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## Safety & Passport Programs, Combined With Migratory Birds Signal Start of Spring Flying Season

by Christopher Roy  
Director

**C**an you believe it? In a few weeks we could see the first vestiges of spring. I am confident many are excited about that prospect, especially those who don't fly in the winter. Today is a great day to make it a priority for refreshing your knowledge of your aircraft's "Pilot's Operating Handbook" (POH) and the Federal Aviation Administration "Airman's Information Manual and Federal Aviation Regulations (AIM/FAR). As we begin this new season of flight, I want to remind you all to make *safety* the first thing you consider whether in your car, or in your airplane.

Don't forget to check out the FAASTeam safety seminars. You can access the latest information about them at: <http://www.dot.state.mn.us/aero/avoffice/>. Click on safety seminars on the lower right side of the landing page.

Also I urge all pilots to actively participate in the "Fly Minnesota Airports" (Passport) Program. It is a win-win program designed to help you enhance your safe flying and practices, while giving you the opportunity to truly explore Minnesota by air. With this program you'll have a reason



Christopher Roy

to go visit all 136 publicly owned airports throughout the state and get first-hand knowledge of the many "hidden treasures" of Minnesota. Not only will you have the opportunity to experience the challenges of unfamiliar airports and put into practice what you have learned in the safety seminars you have attended, but you will have fun doing it.

For more information on this exciting program, go to: <http://www.dot.state.mn.us/aero/>. Then click on the passport at the lower left side of the page.

By participating in this program, you will experience all I mentioned earlier, plus you'll enhance and upgrade your flying skills and thus improve flying safety in Minnesota. You can also qualify for prizes at different levels of program completion. Check it out! You'll be glad you did!

I want to remind pilots of one more important thing. As early as mid-March, activity along the Mississippi flyway can begin. Birds will be winging their way back to the northern breeding grounds. Many birds will never climb above 3,000 feet AGL, and many of those can be found flying between 500 ft and 1,800 feet. So please review your procedures for avoiding the birds and if you get up close and personal with one in flight, know what to do to fly your aircraft safely after a strike.

Think Spring! It isn't that far away. □

### Unmanned Aircraft in North Dakota Enhance Northern Border Security Mission

GRAND FORKS AFB, N.D. – The mission of the U.S. Customs and Border Protection (CBP) Unmanned Aircraft Operations Center of North Dakota at the Air Force Base in Grand Forks, N.D., is to enhance security operations on the U.S.-Canada border.

At dedication ceremonies for the center in 2009, CBP Air and Marine Assistant Commissioner, Maj. Gen. Michael C. Kostelnik (Ret. USAF), said: "The expansion of the unmanned aircraft program to the northern border represents a significant step forward in our border security efforts, using this proven, effective technology to support our officers and agents along the border. This critical mission asset will bring

a new high-tech approach to the border security mission and will enhance our valuable partnerships with Canadian and U.S. law enforcement entities."

CBP says its Air and Marine unmanned aircraft systems reduce the number of personnel required to gain operational control of the border. The center assists other law enforcement agencies upon request. The facility employs 50 federal employees and contractors, and has an annual budget of \$2.7 million.

Built by General Atomics Aeronautical Systems in San Diego, Calif., CBP's unmanned aircraft, the MQ-9 Predator B, is capable of flying at speeds of up to 260 mph for more than 18 hours at altitudes up to 50,000 feet. The aircraft is equipped with state-of-the-art electro-optical sensors manufactured by Raytheon ([www.cbp.gov](http://www.cbp.gov)). □

# Unmanned Aerial Vehicles... The Future At Our Doorstep



Dave Weiman

MQ-9 Predator B on display at EAA AirVenture 2009, Oshkosh, Wisconsin.

**W**e can see that times are changing as our government becomes more adept at using Unmanned Aerial Vehicles (UAVs) for Homeland Security, Border Patrols and other law enforcement activities. Sadly, the reality is that there IS a need for them and we are headed into a time where GA and UAV aircraft will regularly share the skies.

The growth and overall sophistication of the UAV platforms, as well as the variety of UAV aircraft, have grown exponentially since 2001. Now these “drones” are much more than just a camera-carrying platform. They can currently fly missions ranging from surveillance, to aerial mapping, to air search and rescue (though it will be a manned vehicle that will do the on-scene rescue). There are many other potential applications for UAVs, and

that potential will, in the very near future, place these aircraft in domestic airspace in ever-increasing numbers.

In an article presented by Minnesota Public Radio (Broadcast Dates: Morning Edition, 12/15/2009, 7:20 a.m.), December 15, 2009, author Dan Gunderson said, “Unmanned aircraft fly missions every day in Iraq and Afghanistan, but experts say someday those remotely piloted planes could play a big role in commercial aviation right here at home.”

He continued, saying, “Unmanned aircraft are strictly limited by the Federal Aviation Administration. The agency will grant waivers for specific flights. Customs and Border Protection (CBP) has a waiver to fly unmanned craft along the borders conducting surveillance.

The University of North Dakota (UND Aerospace) has permission to fly unmanned aircraft in restricted military airspace. They hope to have a large unmanned flight test range in northern North Dakota approved by the FAA as soon as next year.”

The Grand Forks Herald published an article on November 21, 2009 by reporter Tu-Uyen Tran. The article is titled, “The Scan Eagle Has Landed.” In that piece Tran states that, “The Federal Aviation Administration has been moving very cautiously with unmanned aircraft because it fears that without the situational awareness of a pilot in the cockpit, unmanned aircraft could pose a greater risk to manned aircraft.”

Tran adds that, “Researchers around the world and at UND are working on systems that would allow unmanned aircraft to sense and avoid other aircraft, but it’s hard to tell when

they'll come up with a product."

A test has been developed under the direction of UND Professor Ben Trapnell who is leading the development of the school's Unmanned Aircraft Degree Program. The test will help determine if radar controllers can see the various UAVs and perhaps devise a solution that will aid them to see not only UAVs, but aircraft that are made of cloth, like hot air balloons. The test will use three radar units arranged in a triangle approximately 19 miles on a side. That way whatever direction the aircraft is pointed will likely be seen by one or more of the radars at any given time.

In the meantime, researchers at UND and other locations across the country are working to develop the technology that will allow unmanned aircraft to not only sense other aircraft, but also autonomously avoid other aircraft. It could take years, however, before that technology is developed, tested and made available

for the UAV systems. Thus the radar tests and their potential useful outcomes might fill the gap until the "sense and avoid" technology comes on line. Even when such technology is in place, it will remain one of the pilot's primary responsibilities to fly their aircraft and maintain good situational awareness at all times.

With the future at our doorstep, it is amazing to think that the pilots of today may have grandchildren and children who, in a very short period of time, will be studying and practicing to be pilots that may never leave the ground. But that doesn't mean they will simply be "simulator-type pilots."

In fact, UND is taking a proactive approach to training its new UAV pilots.

Because they recognize the UAV industry is still in its infancy, UND is designing their programs to teach future UAV pilots to be active critical and creative thinkers. This is being done so that the pilots can effectively communicate ideas and information, while actively contributing to the growth and safety of this new facet of the aviation industry.

Article located at: <http://minnesota.publicradio.org/display/web/2009/12/11/und-unmanned-aircraft/>



## Aviation Maintenance Conference To Feature "Aviation Jobs" Nationwide



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The 2010 Minnesota Aviation Maintenance Conference will be held March 29-30 at the Earle Brown Heritage Center, 6155 Earle Brown Drive, Brooklyn Center, Minnesota. Attendees will be able to participate in continuing education classes, visit with exhibitors and aviation industry employers, and complete their Inspection Authorization (IA) renewal on site. The event is co-sponsored by the Minnesota Department of

Transportation and the Federal Aviation Administration.

This year's conference theme is "Back to Basics." More than 500 people are expected to attend the conference and participate in training sessions that cover a large variety of maintenance subjects on aircraft and systems from props to jets. Attendees will have the opportunity to enjoy education, networking, industry exhibits, and career opportunities.

The conference continues to

grow and retain its international flair with participants and exhibitors from Canada and all over the United States. Select sessions and breaks are sponsored by industry representatives who support continuing safety education.

High school students from around the state are also expected to

participate in the conference. They will have the opportunity to meet with aviation business professionals, listen to aviation speakers and explore quality, affordable aviation education at Minnesota colleges and universities. Students will also have the opportunity to speak to and network with mechanics, pilots and

other aviation professionals who are working in aviation-related fields.

For more information about the 2010 Minnesota Aviation Maintenance Conference and to register online, go to: <http://www.dot.state.mn.us/aero/avoffice/events>, or contact Janese Thatcher at 1-800-657-3922 x-7183. □

## "Unable"

by Nick Modders

One of my favorite monthly publications is "Callback," the monthly missive from the National Aeronautics & Space Administration (NASA) that excerpts NASA Aviation Safety Reporting System (ASRS) submissions. You know those reports as the NASA reports you send in every time you do something that might attract the attention of the "feds," and if properly filed, the report may get you off the hook if the feds do notice.

In Callback 359, November, 2009, there was a tale titled "Ex-pe-DICEY" about a couple of aviators who were taxiing an MD-80 in winter conditions that included slippery ramps, taxiways and runways. As they approached the runway, the tower instructed them to "Expedite" their takeoff for traffic on final to another runway.

The cooperative captain added a whole bunch of power and promptly expedited himself right off the very slippery runway in a grand slide. So much for Mr. Nice Guy. Now it wasn't that they didn't know that the pavement was slippery. The evidence of winter was all over the place, several inches deep. And there was also ice under the snow. How could this happen?

Everything was going along fine until a voice said to "expedite." Then all awareness of a difficult situation was discarded and the captain started acting like it was summer and went faster than he knew he should have. The question has to be "Who is taxiing the airplane?" Choices: the captain or the guy in the tower. The

guy in the tower is on a dry rug, so he did not slide anywhere. The guy in the airplane knew better, but sort of lost his discretionary powers and made a poor choice.

There were two choices in a situation like this: Go fast or go really slow, maybe stop. In the Air Traffic Control Procedures Manual the word "Expedite" is used to make something go faster to avoid an imminent situation. If you are taxiing, stopping could also avoid an imminent situation.

The decision is the pilot's and no one else's. Now the guy in the tower has only one reason for being there. Back in the good old days the Air Traffic Control Procedures Manual said that he was to provide for the safe, orderly and expeditious flow of air traffic. The wording is different now, but the idea is the same. The pilot is in the airplane to operate it in a safe and expeditious manner. Normally, the emphasis is on "safe."

*So what is a pilot to do when the guy in the tower asks for something that is not in the best interest of the pilot?*

Now this rarely happens so most

pilots are not proficient in saying "NO." Actually, "NO" is a poor choice of words, but "unable" is really a good word. If you can't do it, they can't make you, and other arrangements will be made.

This is all about operating the airplane safely. Who does that? The pilot does that. If Air Traffic Control asks for something that you as pilot-in-command cannot (or should not) do, help them out and advise them of that fact and it need not be a long, excuse laden, rambling statement. All you need to say is "unable." That will undoubtedly be the end of the discussion.

(For our "Ex-pe-DICEY" captain, you can bet that wasn't the end of the discussion. Think of all the papers, phone calls, discussions with the chief pilot, etc., etc. "Unable" would have been a great response.) "Unable."

**EDITOR'S NOTE:** Nick Modders is a retired U.S. Air Force Command pilot and a frequent contributor to the Minnesota DOT Office of Aeronautics Technical Bulletin.

**REFERENCES.**  
NASA Callback  
<http://asrs.arc.nasa.gov/publications/callback.html>  
"Expedite" Airman's Information Manual-Pilot/Controller Glossary □

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## Minnesota FBOs To Take Stand On Fuel Tax/Aircraft Registration Fee Proposal... Should The Goal of Government Be "Equal Taxation?"

MINNEAPOLIS, MINN. – "One way or another, the fixed base operators must take a stand on the proposal to lower the Minnesota aircraft registration fees and increase the state's fuel tax, or to leave things as they are," said Kevin Doering, President of the Minnesota Aviation Trades Association (MATA).

Doering is administrator of North Star Aviation in Mankato, Minnesota, and as operators and managers of corporate jets, North Star understands where corporations in Minnesota are coming from when it comes to paying outrageous sales tax and annual registration fees on corporate aircraft. The proposal by the Minnesota Business Aviation Association (MBAA), whose membership is made up of primarily corporate flight departments, does not affect small piston general aviation aircraft – only turbine aircraft.

If you own a \$20 million corporate jet in Minnesota, you can pay up to \$200,000.00 to register it the first year, and less in subsequent years. If you own a Cessna 150, you pay about \$75.00 per year.

MBAA believes that the rates for the larger aircraft are too high, and have proposed reducing registration fees on turbine aircraft, and replacing them with a higher tax on jet fuel, so transient aircraft pay their fair share.

According to Gordon Hoff, Executive Director of MBAA, and a former employee with the Minnesota DOT Office of Aeronautics, aircraft registration fees and avfuel tax rates for piston aircraft would continue to operate under the current policies. MBAA is proposing changes only for

turbine aircraft and jet fuel. Under the proposal, turbine aircraft would pay a registration fee based on weight – \$ .50 per lb. of the maximum gross takeoff weight. Some members of the MBAA task force would like to see upper end piston aircraft considered in the new \$ .50 per lb. registration fee rate, but that has yet to be decided.

Currently, aircraft registration fees are based on the manufacturer's base list price of the aircraft: 1% of the value of the aircraft for the first year, and for the next 6 years, this is reduced from 1% to 0.25%. For years 7 and for the next 43 years, the rate drops to \$25,000.00 per year. Turbine aircraft owners in surrounding states pay as little as \$300.00 in South Dakota and as much as \$5,000.00 in Iowa to register their aircraft, says Hoff.

Here's a side-by-side comparison of current and proposed fees:

| <u>Non-Turbine Aircraft</u> | <u>Current</u>       | <u>Proposed Change</u>                                              |
|-----------------------------|----------------------|---------------------------------------------------------------------|
| <u>Registration Fees</u>    |                      |                                                                     |
| C150 (Example)              | \$75.00 per year     | None                                                                |
| Fuel Tax                    | \$ .05 per gallon    | None (Assuming they are not burning over 50,000 gallons in a year.) |
| <u>Turbine Aircraft</u>     |                      |                                                                     |
| <u>Registration Fees</u>    |                      |                                                                     |
| Citation X (\$20M Value)    | \$200,000.00         | \$18,000.00 (\$ .50/lb)                                             |
| Fuel Tax                    | \$ .05 to \$50K      | \$ .06 (no limit)                                                   |
|                             | \$ .02 to \$150K     |                                                                     |
|                             | \$ .01 to \$200K     |                                                                     |
|                             | \$ .005 after \$200K |                                                                     |

That's the proposal by the corporate aircraft owners in Minnesota. Their views may or may not coincide with the views of fixed base operators and other aviation business professionals in the state.

At least one fixed base operator also feels that the majority of the

state's aviation revenue should be coming from the aviation fuel tax, rather than aircraft registration, but is concerned that older aircraft and some upper end piston aircraft could be adversely affected with the current proposal.

The FBO notes that as with the FAA funding debate, fuel taxes are the easiest to collect, hardest to escape, and the most equitable form of funding. An added bonus, he says is that everyone wants to be seen as promoting conservation. "By taxing fuel, those with the highest fuel consumption will pay more, therefore encouraging the purchase of more fuel-efficient airplanes."

His concerns with the current proposal is that at 50 cents per pound for registration, an old King Air would cost \$6,250 to register, which would be a BIG increase, and much more

than neighboring states. An old Sabreliner would cost over \$10,000 for a \$300,000 aircraft. The 50-cent figure works out about right for new jet aircraft, but is out of line for older aircraft.

Turboprops tend to buy more fuel at home than jets, he notes. "They have the range to go out and back, they are not runway constrained, and their shorter trips can often be flown on one tank of fuel." The operator suggests lowering the cost per pound to register turboprops. "It

not only corrects the inequities in the proposed registration fee increase, but we will recapture revenue with increased fuel sales."

While no change is proposed for piston aircraft, the operator is concerned that "the nose of the camel is under the tent." 50 cents per pound on an

old Cessna 206 would be \$1,800 per year, another HUGE increase. If some members of the MBAA task force get their way, upper end piston aircraft would get hit.

The operator also says that he is against creating "classes" of taxation. "Taxing some operators more just because they have a turbine airplane, and taxing others more just because their airplane is bigger, is not fair. Can you imagine the hue and cry if there

were different prices at the auto pump for different vehicles?"

The operator believes that the goal of government should be to collect the revenue needed for operations, and that should mean "equal taxation." Once again, a fuel tax does that.

Doering and MATA's Government Affairs Committee headed by Alex Haak of Thunderbird Aviation (FCM and MIC), and Attorney Greg Reigel of Reigel & Associates, Hopkins,

Minn., have requested members to express their views one way or another. Aviation organizations will need to be united on the issue before going to the Minnesota State Legislature and governor.

Anyone wishing to express their views may do so by emailing Alex Haak at [ahaak@thunderbirdaviation.com](mailto:ahaak@thunderbirdaviation.com), and Greg Reigel at [greigel@aerolegalservices.com](mailto:greigel@aerolegalservices.com) ([www.mnaviationtrades.org](http://www.mnaviationtrades.org)). □

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all elements of maintenance: preventive, rebuilding, and alteration. With detailed information on structural inspection, protection, and repair, including aircraft systems, hardware, fuel and engines, and electrical systems, this comprehensive guide is designed to leave no vital question on inspection and repair unanswered. Sections include: wood, fabric, plastic, and metal structures; testing of metals and repair

procedures; welding and brazing, including fire explosion and safety; nondestructive inspection (NDI); application of magnetic particles; common corrosive elements and corrosion proofing; aircraft hardware, from nuts and bolts to washers and pins; engines, fuel, exhaust, and propellers; aircraft systems and components; and electrical systems.

The FAA, established in 1958, also authors the "Airplane Flying Handbook, The Pilot's Encyclopedia of Aeronautical Knowledge," and "The Federal Aviation Regulations/Aeronautical Information Manual."

These books are available from Skyhorse Publishing: ISBN: 978-1-60239-950 1 Price: \$24.95, [www.skyhorsepublishing.com](http://www.skyhorsepublishing.com). □

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Dick Knapinski

## Knapinski Named EAA Communications Director

OSHKOSH, WIS. – Dick Knapinski has been named EAA Director of Communications, after serving as a member of the Experimental Aircraft Association's Public Relations/Marketing staff since 1992. His responsibilities include overall communications strategy and execution for the 160,000-member aviation organization, as well as serving as chief liaison with media representatives who report on

EAA and EAA Aviation Foundation activities throughout the year. These activities include EAA AirVenture Oshkosh, which has an annual attendance of more than 500,000 and draws 10,000 airplanes and nearly 1,000 members of the international media to Wittman Regional Airport in Oshkosh, Wisconsin.

"There are hundreds of great stories about what EAA members, chapters, and the organization are

doing to encourage and increase aviation participation," said Knapinski. "It's a mission that all of us in aviation must embrace, and EAA is in a unique position to tell those stories and welcome people to aviation in many different ways."

Knapinski continued: "Communication has grown increasingly complex over the past decade and it is an intriguing challenge to reach all of the possible outlets. We want to reach aviation enthusiasts with the knowledge and information that best serves them, regardless of the format."

Prior to joining the EAA staff, Knapinski worked for a number of broadcast and print media outlets throughout Wisconsin with assignments in both news and sports. Among his assignments were coverage of the Super Bowl and the NCAA basketball tournament. He continues to contribute occasional features for newspapers and magazines, including a number of aviation publications.

A Wisconsin native, Knapinski holds a Private Pilot SEL Certificate and currently flies a 1967 Piper Cherokee 140. He also has logged flight hours in an RV-6A and various other aircraft. □

## SPECIAL EVENTS

### Doolittle Raiders Planning Reunion At Air Force Museum

DAYTON, OHIO – The Doolittle Tokyo Raiders are in the final stages of planning their 68<sup>th</sup> reunion at the National Museum of the U.S. Air Force, April 16-18. The reunion will include a free public autograph session, educational event and memorial service at the museum, as well as a dinner (for a charge).

In addition, a free public concert honoring the Raiders will take place at Wright State University's Nutter Center. Of the nine living Doolittle Tokyo Raiders, five are currently able to travel and plan to be on-hand for the reunion events.

As a possible special tribute to the Raiders during the reunion, the Doolittle Tokyo Raiders Association, Inc. is hoping to secure enough sponsorship funding to fly in and land 25 B-25 Mitchell Bombers on the

runway behind the museum. If their efforts are successful, this aviation event would be the largest gathering

of B-25s since WWII.

Those interested in helping to make this flight of B-25 bombers possible should contact Tom Casey with the Doolittle Tokyo Raiders Association, Inc. at (941) 921-7361 or by email at: tomcat911@comcast.net. (*Federal endorsement is not implied.*)

More information on the reunion, including instructions on how to purchase dinner tickets, will be made available closer to the date of the event. The National Museum of the United States Air Force is located on Springfield Street, six miles northeast of downtown Dayton. It is open 9 a.m. to 5 p.m. seven days a week (closed Thanksgiving, Christmas and New Year's Day). Admission and parking are free. □



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## DC-3s Flocking To Join AirVenture Birthday Bash

OSHKOSH, WIS. – They're coming from everywhere; some three dozen DC-3 and C-47 aircraft have already shown interest in participating in "The Last Time..." the 75<sup>th</sup> anniversary celebration of the aircraft at EAA AirVenture Oshkosh 2010 to be held July 26-August 1 at Wittman Regional Airport in Oshkosh, Wisconsin.

The list of potential aircraft that will be participating in the DC-3 mass arrival is still being finalized, but many of the participants listed at [www.TheLastTime.org](http://www.TheLastTime.org) website are committed to participating in the formation arrival coming to Oshkosh.

Fewer than 100 of the aircraft remain airworthy in the United States, meaning that nearly half of the current fleet could be present at AirVenture 2010. The weeklong festivities at Oshkosh will also include historical and technical forums/presentations, fly-bys and a special evening DC-3 commemorative program at Theater in the Woods.

One of the details being solved currently is parking for this many aircraft. It's anticipated that AeroShell Square,



A line-up of DC-3s at EAA – a sampling of what we will see at EAA AirVenture-Oshkosh 2010.

along with the Warbirds and Vintage Aircraft parking areas, will be fully engaged to showcase these venerable airplanes.

DC-3 and C-47 aircraft owners are encouraged to sign up with Adam Smith at EAA headquarters at [asmith@eaa.org](mailto:asmith@eaa.org) (www.eaa.org).

## 2010 Marks 100<sup>th</sup> Anniversary of Powered Flight In Iowa

The state of Iowa celebrates 100 years of powered flight in 2010. In 1910, just seven years after the Wright Brothers first flew at Kitty Hawk, the first powered airplane flights took place in Iowa. Several men flew in Iowa in that year, but the first documented flight occurred on June 10, 1910 from the old Burlington Country Club in Southeast Iowa.

Since that time, we have witnessed the development of a mature air transportation system throughout Iowa and around the globe. From the development of airports and aviation services to the introduction of modern aircraft, Iowa has experienced significant increases in the utilization and safety of the air transportation system throughout the 20<sup>th</sup> century and into the 21<sup>st</sup>.

Several key aviation events are expected to be held in Iowa to commemorate the anniversary.

As one way to commemorate 100 years of flight in Iowa, the Iowa



DOT has developed a logo for groups or individuals to use to increase awareness of this important milestone in Iowa history. Development of the logo was a recommendation to the Iowa DOT Office of Aviation by the Iowa Aviation Advisory Council. To receive a high resolution copy of this logo, email [Michelle.McEnany@dot.iowa.gov](mailto:Michelle.McEnany@dot.iowa.gov).

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Photo by Gilles Aulard

## American Barnstormers Announce Tour Dates For 2010

MIDWEST USA – If you have dreamt of wearing a white scarf and goggles, and flying or at least riding in a vintage biplane, “The American Barnstormers Tour,” might just be your chance to make that dream into reality. The American Barnstormers Tour, a nostalgic salute to the barnstormers who ventured across America during the 1920s seeking fame and fortune in their biplanes, is scheduled to visit Iowa, South Dakota, North Dakota, and Minnesota on their third biannual tour this summer. Twenty meticulously restored vintage aircraft from the 1920s and 1930s will journey through the northern Great Plains states on a seven-city tour from June 17th through July 5th, 2010. Admission is free and these rare aircraft can be seen at the following cities:

**June 17-19 Mason City, IA**  
Mason City Airport (KMCW)

**June 20-22 Tea, SD**

Marv Skie-Lincoln Airport (Y14)

**June 23 Watertown, SD**

Watertown Regional Airport (KATY)

**June 24-26 Aberdeen, SD**

Aberdeen Regional Airport (KABR)

**June 27-29 Bismarck, ND**

Bismarck Airport (KBIS)

**June 30-July 2 Jamestown, ND**

Jamestown Regional Airport (KJMS)

**July 3-5 Alexandria, MN**

Chandler Field Airport (KAXN)

The American Barnstormers Tour was born under the wing of an antique Travel Air biplane on a grass airfield in Iowa. In the company of friends and vintage biplane pilots, plans were formed to resurrect the barnstorming tours of the 1920s, where many local citizens would see their first airplane up close, or perhaps spend a few dollars for their first flight. Tour organizers Clay Adams and Sarah Wilson saw an opportunity to give visitors from all backgrounds a unique vantage point to connect the past with the present. What started as just a dream has blossomed into a real barnstorming revival!

The first American Barnstormers Tour lifted off in 2006 with 17 airplanes from Kalamazoo, Mich., and traveled through five states to end at EAA AirVenture in Oshkosh, Wis. The response was tremendous; it reinforced the belief that people were still excited to see these beautiful aircraft

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and take their first biplane ride. In 2008, the tour flew westward into America's Heartland and grew to 19 aircraft and 45 crewmembers. Organizers estimate more than 20,000 people traveled to see the tour and the tour nearly doubled the number of biplane rides, flying a record 3,590 passengers in 15 days.

Each day the aircraft will take to the skies for the "Barnstormers Parade of Flight" with master of ceremonies, EAA Radio on-air personality, Jeff Montgomery. Montgomery will entertain the crowd with his unique announcing style with tall tales of barnstorming, and describe the history of each biplane as the pilots fly overhead.

Spectators can even experience the thrill of open cockpit

flight for themselves and go barnstorming in a beautifully restored Travel Air, New Standard, or Stearman vintage biplane. Biplane rides will be available daily weather permitting. All barnstormers will participate in recreating the era with period costumes, aircraft signs, historical information, and vintage props.

Tour aircraft will be on display from approximately 10 am to 6 pm (weather permitting). Biplane rides are available for \$60.00 per passenger, no reservations, and Stearman "hands-on flights" for \$200.00, reservations accepted. For more information visit the American Barnstormers web site at [www.americanbarnstormerstour.com](http://www.americanbarnstormerstour.com) □

## AWARDS & RECOGNITION

# Skiles Scores A Perfect Landing At Wright Banquet

OSHKOSH, WIS. - "Let me put you in the jump seat of our Airbus A320 on that fateful day in January," said U.S. Airways First Officer, Jeff Skiles, of Oregon, Wisconsin, who managed to land an Airbus A320 on the Hudson River on January 15, 2009, with fellow pilot Chesley Sullenberger, after Canada geese they hit caused both engines to fail. All 155 passengers and crewmembers survived without serious injury.

The featured speaker at the 7<sup>th</sup> annual Wright Brothers Memorial Banquet December 18, Skiles captivated the attention of the 370 attendees, holding them spellbound until Skiles quipped with some of the comical things that occurred that day as well.

He described one passenger who stripped to his underwear, jumped into the frigid waters of the Hudson, then after climbing



EAA President & Chairman Tom Poberezny (right) makes a toast in memory of Orville and Wilbur Wright with (L/R) EAA Young Eagles Cochairman Jeff Skiles (left); Vice President of Membership, Adam Smith (second to left); and Phil and Becky Haupt of Roseville, California (center right). Phil Haupt flew the 1.5 millionth Young Eagle on October 3, 2009.

back onto the wing of the Airbus asked Skiles what to do next, who suggested he get into one of the life rafts where fellow passengers sat on top of him to keep him

warm until ferry boats arrived on the scene 4 minutes later.

Skiles honored the memory of Orville and Wilbur Wright, reminding

Dave Weiman

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(L/R) Becky and Phil Haupt of Roseville, California, bought one of 100 copies of the December 2009/January 2010 issue of *Midwest Flyer Magazine* in which EAA Young Eagles Cochairman Jeff Skiles autographed and numbered, making them limited edition collector items. The magazine included a feature article written by Skiles on flying the new Airbus A380, the largest commercial airliner in the world! Skiles and fellow Young Eagles cochairman, Capt. Chesley Sullenberger, successfully landed an Airbus A320 on the Hudson River on January 15, 2009 (U.S. Airways Flight 1549). Over \$1,600.00 has been raised thus far from the sale of the magazines. Phil Haupt flew the 1.5 millionth EAA Young Eagle on October 3, 2009.

the audience of their successful first 12-second flight on December 17, 1903 then added, *"But I became famous for not flying successfully."* Skiles also noted that Orville Wright was the first pilot to hit a bird in flight...in September 1905.... something the two have in common.

Following a showing of EAA member Kas Osterbuhr's computerized re-creation of Flight 1549, Skiles described the flight. *"It was the last flight of our four-day trip schedule, and it was my leg to fly. As we were climbing through about 400 feet, Captain Chesley 'Sully' Sullenberger remarked, 'What a view of the Hudson today.' Afterwards, I couldn't help but think about how ironic that was."*

*"As we were heading for 3,000 feet I started pitching the nose over to maintain our assigned altitude and caught*

*the sight of birds in my peripheral vision and then I heard and felt the impact and could literally feel the airplane decelerate as the engines lost power."*

Skiles then recounted their failed attempt to restart the engines, the decision-making process about where to put the airplane, and hailed the efforts of air traffic controller Patrick Hardin, who Skiles called the real hero of the day. Mostly, he said, *"I kept hoping I'd wake up from this bad dream."*

Skiles jokingly added, *"That adage 'Any landing you can walk away from is a good landing' didn't quite apply to us. We couldn't just walk away; we needed boats."*

Skiles, who serves as honorary co-chairman of EAA's Young Eagles program with Sullenberger, then told the audience that the experience definitely changed his life. *"Good or bad, my life's changed. In one way, it's been*

*incredibly positive because it brought me (back) to Oshkosh this summer for AirVenture, which helped me rediscover my love for flying."* That led to Skiles buying a 1935 Waco YOC biplane, in which he hopes to give many Young Eagles rides.

Skiles closed the evening by seeking the audience's continued support for the Young Eagles program through financial assistance, as well as giving airplane rides to kids.

Two other special guests, Phil and Becky Haupt of Roseville, California, helped join in with EAA President and Chairman, Tom Poberezny, Jeff Skiles, and EAA Vice President of Membership, Adam Smith, in a toast to the memory of Wilbur and Orville Wright. Phil Haupt was the pilot of the flight marking the 1.5 millionth Young Eagle flown on October 3, 2009. □

## Sully & Skiles Return To The Friendly Skies... Sully Announces Early Retirement

**L**ess than five months following their return to the skies on October 1, 2009, as the dynamic dual of the airline industry, U.S. Airways Captain Chesley "Sully" Sullenberger and First Officer Jeff Skiles of Flight 1549 fame, will fly together for the last time, February 17-18, 2010. Sullenberger is retiring from the airlines. Skiles will be flying with Sully between Charlotte Douglas Airport, Charlotte, N.C. (CLT) to Los Angeles International Airport, Los Angeles, Calif. (LAX), and back to Charlotte.

Sully and Skiles successfully landed a U.S. Airways Airbus A320 on the Hudson River on January 15, 2009, when their aircraft hit a flock of Canada Geese. All 155 passengers and crew survived without serious injury.

Skiles and Sullenberger are cochairmen of the EAA Young Eagles Program. □

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## 7<sup>th</sup> Annual Living Legends of Aviation Honors Cruise, Aldrin & Russell

BEVERLY HILLS, CALIF. – The 7<sup>th</sup> Annual Living Legends of Aviation Awards Program honored pilot/actor Tom Cruise for his starring role in the motion picture “Top Gun” at ceremonies held January 22 at the Beverly Hilton. Fellow pilot/actor, John Travolta, presented the “Top Aviation Inspiration & Patriotism Award” to Cruise. Top Gun, the highest grossing aviation movie of all time, has inspired generations of young pilots and patriotism among many Americans of all ages. Cruise is an accomplished aerobatic pilot, and owns several airplanes, including a P-51 Mustang – an airplane he so admired as a kid growing up.

Apollo 11 astronaut, Dr. Buzz Aldrin, received the “First Out of This World Landing and Take-Off Award,” which John Travolta also presented. Aldrin’s father served as an aide to Billy Mitchell, the father of the U.S. Air Force.

Other award recipients included Preston Henne of General Dynamics receiving the “Aviation Industry Leader of the Year;” Elon Musk, PayPal founder, and founder and Chairman and CEO of Space Exploration Technologies

(SpaceX), which was recently awarded a multi-billion dollar contract with the U.S. Government to develop and build space launch vehicles for NASA to replace the retiring space shuttles. Musk received the “Aviation Entrepreneur of the Year” Award; and Joe Clark, founder of JetAir, received the “Lifetime Aviation Entrepreneur” Award. In 1991, Clark and Dennis Washington founded Aviation Partners, inventing and developing blended winglets.

Kermit Weeks received the “Bob Hoover Freedom of Flight Award” for building his Fantasy of Flight Museum in Polk City, Fla., the largest private collection of vintage aircraft in the world, with over 140 aircraft.

Pilot/actor, Kurt Russell, received the “Aviation Mentor Award” for mentoring many pilots within and outside of the entertainment industry.

The event is produced by the Kiddie Hawk Air Academy, a non-profit 501(c)(3) qualified organization. Kiddie Hawk introduces kids ages 5 thru 11 to flight with the Kiddie Hawk Trainer. □

### Flying Without Your Plane

by Karen Workman

I will never again have to choose between flying my plane on vacation, or being flown on a jumbo jet to an exciting destination. I learned I can do both, or put another way, I learned how to fly without my plane.

It's simple, really. You pick a vacation spot that you would love to see, then book a commercial flight there. Yes, that's right: you buy a ticket and let someone else fly the plane. Your commercial flight will take only a matter of hours, rather than the full day or more to reach your personal paradise. Once you are checked into your hotel, go to the nearest fixed base operation or flight school. Tell the nice people there that you are from out of town and want to rent one of their planes. Most rentals require a check out flight with an instructor. That check out requirement can also be viewed as an opportunity to see the local area in the left seat of a small plane with a personal tour guide sitting

right next to you.

I'm not suggesting any deception here. There is no reason you shouldn't be up front with the fixed base operation or flight school. Tell them whether or not you expect to rent from them again. The instructor will usually appreciate the opportunity for a fun flight, as much as you.

I discovered this great little trick while visiting my sister in California. While she was sleeping one afternoon, I slipped out to the Hanford Municipal Airport. Hanford is in the fertile valley known as “America’s fruit basket,” and is the hometown of one of my favorite singers, Steve Perry of Journey.

It was an adventure just finding the airport in my sister's early model economy car that wanted to quit whenever the gas pedal was released. The airport was tucked behind vacant fairgrounds at the end of a dusty road on the far side of town. I told the young man tending the desk at the fixed base operation that I wanted to fly one of their planes

**CONTINUED ON PAGE 62**

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# Joe Dooley... He Got It Right!

by Dave Weiman

Air show performer, Joseph Patrick Dooley, 56, of Hutchinson, Minn., known throughout the country as the “Flying Irishman,” took his final bow Christmas Day, December 25, 2009, after a 20-month battle with cancer. Dooley flew a Red SIS Pitts Special, an economical aircraft that enabled him to provide exceptional aerial entertainment at reasonable rates.

At a time when many small towns gave up trying to fund and organize air shows, Dooley and his wife, Cheryl, made a name for themselves by helping these communities overcome the many hurdles of putting on a small town air show. Dooley found a niche, and became a tremendous advocate for small town shows. He was always doing anything he could to help produce the show, from coordinating safety on the field, to obtaining FAA waivers, and even solicited sponsors.

Dooley obtained his pilot certificate in 1977, but quickly grew bored with normal flying and taught himself to fly aerobatics by reading everything available and practicing endlessly.

Dooley started performing in air shows in 1990, and it quickly became apparent to him that there were a small number of air shows around the country, compared with the number of performers seeking work. So he started looking for communities where no one was doing a show, and helped establish one. Once a show was established, they would hire Dooley back year after year, for his showmanship as a performer, and for always giving more back to the community than he ever took in fees.

“What I found was an untouched market – small communities with populations of less than 5,000 people,” said Dooley in a 1990 interview with *Midwest Flyer*



*Magazine.*

“When I contacted managers of these small town airports, I found enthusiasm high, but knowledge on how to put on an air show, low.”

So, to make the airport managers’ jobs easier, Dooley took on the responsibility of getting all of the paperwork together for the FAA waiver.

“This seems to be the most intimidating task for these managers, and allows them to concentrate on contacting the local business community and civic organizations to raise money and promote the air show,” said Dooley.

“After doing a few of the small shows, we realized that most communities do not have the best sound systems and were lacking capable announcers,” said Dooley, so he took care of getting sound and an announcer, as well.

It doesn’t take a lot of money to

put on a good one, two or three-act air show, noted Dooley, and most civic organizations are looking for projects to enhance their communities. Most of these shows have terrific attendance, because it’s a big event for a small community.

Another untouched market Dooley found was “county fairs.” Back in the 1950s, many of the barnstormers performed air shows at county fairs around the country, and Dooley helped bring air shows back to rural America.

“I found the reception by the county fair boards to be very positive,” said Dooley. “Bring an unusual event, such as an air show to a county fair, brings larger attendance, and increased revenue.”

Prior to and during the infancy of his air show career, Joe Dooley was a carpenter, and he and his wife own a successful real estate business. So together, they put their business

experience together to build the air show entertainment industry.

During the 17 years he spent on the air show circuit, Dooley flew 500 performances at 260 locations. Of course the pinnacle of any air show performer's career is to perform at the world's largest air show, EAA AirVenture in Oshkosh, Wis. Dooley performed at Oshkosh in 1996, 1998, and 2000.

In recent years, Dooley focused his attention on flight training, and his first student was Jessica Miller, also of

Hutchinson, Minn., who recently completed landing at all 130 publicly-owned airports in Minnesota, becoming the first person to do this under the State of Minnesota's "Fly Minnesota Airports Passport Program." Miller is currently enrolled at St. Cloud State University majoring in professional pilot and aviation management.

Hundreds of people showed up for Joe Dooley's funeral – family, neighbors, his students, friends from the air show entertainment industry, people he built homes for, and people he built air shows for. □

## Air Show Air Boss, Jim Brady

POWERS LAKES, WIS. – James "Jim" Joseph Brady, 68, died January 9, at his home in Powers Lake, Wis. He was a well-known figure in the air show entertainment industry throughout North America, coordinating air show performances at air shows as an "air boss!" Among the shows he worked at in the Midwest was EAA AirVenture-Oshkosh for 33 years as a member of the air operations team, and as the air boss at the Eau Claire, and Manitowoc, Wisconsin air shows. He also produced air shows throughout the United States, and was once a member of the Westosha Flying Club, Westosha, Wis.

Brady was born July 26,



Dave Weiman

1941 in Chicago, Illinois. He married Madelyn "Maggie" Malinowski on November 26, 1964 in Chicago, where they lived before moving to Powers Lake in 1971.

Brady graduated from the Vandercook College of Music. He was manager of the Wilmot Mountain Snow Sports School for the past 14 years, and was active with the National Ski Patrol at Alpine Valley. Brady was also a member and past commander of the Powers Lake Yacht Club where he was an active sailor and race committee member.

Brady is survived by his wife "Maggie;" seven brothers and sisters; an uncle; and many nieces and nephews. □

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## FEBRUARY 2010

- 13\* **MARSHFIELD (MFI), Wis.** - Chili Feed & Ski Plane Fly-In 10am-1pm. 715-207-0744.
- 13-14\* **AITKIN (AIT), MINN.** - Valentine's Sweet-heart Ski Plane Fly-In 11am-3pm at Steve Kurtz Field. Chili, hot dogs & hot apple cider. 8/26 will be groomed for ski planes. 218-927-4104. [capaeo@yahoo.com](mailto:capaeo@yahoo.com)
- 14\* **MONDOVI, Wis.** - Log Cabin Airport Ski Fly-In 10am - Lunch at Noon. Chili, Hot Dogs & Refreshment. 715-287-4205. [logcabinairport@tcc.coop](mailto:logcabinairport@tcc.coop)
- 19-20\* **NOVI, MICH.** - 10<sup>th</sup> Annual Great Lakes Aviation Conference. Sessions starting for Student Pilots to VFR, IFR, Flight Issues. Over 150 exhibitors. [www.greatlakesaviationconference.com](http://www.greatlakesaviationconference.com)
- 20\* **ROYALTON (38WI), Wis.** - Wheels & Skis Fly-In at Northport Field 11am-2pm. [poppyplumbing@centurytel.net](mailto:poppyplumbing@centurytel.net).
- 27\* **SPRINGFIELD, ILL.** - Annual IUAC Ultralight / Sport Plane Safety Seminar at the Illinois State Fairgrounds. 618-664-9706 or 217-524-5269. [www.safety-seminar.com](http://www.safety-seminar.com)
- 27\* **PLYMOUTH (1D2), MICH.** - Frostbite Chili Fly-In at Plymouth Mettetal Airport 11am-3pm. 734-748-7940. [www.eaa113.org](http://www.eaa113.org)
- 28\* **WARROAD (RRT), MINN.** - Ski Plane Fly-In & Breakfast 8am-Noon. Ski planes land on the Warroad River, Wheel planes at the Airport. 218-386-1818 or 218-386-2098. On the 28<sup>th</sup> - 218-386-1691.

## MARCH 2010

- 4-5\* **SPRINGFIELD, ILL.** - Annual Safety & IA Renewal Seminar at the Illinois State Fairgrounds. 217-744-1921. [Brian.L.Lands@faa.gov](mailto:Brian.L.Lands@faa.gov)
- 6 **STEVENS POINT, Wis.** - Mechanics Refresher & Inspection Authorization (IA) Renewal Seminar at Holiday Inn Hotel &

Convention Center. 608-267-7110.

- 7-9 **FARGO, N.D.** - Upper Midwest Aviation Symposium at the Holiday Inn. 701-328-9650. [www.ndac.aero/umas9.htm](http://www.ndac.aero/umas9.htm)
- 13\* **ANOKA (ANE), MINN.** - Twin Cities Aviation Open House 10am-4pm; Cirrus Aircraft Corp. attending; Cirrus Simulator Demos. [Info@tcaviation.com](mailto:Info@tcaviation.com) 763-780-4375
- 13\* **OSHKOSH, Wis.** - Light Aviation Safety Seminar 9am-4pm at EAA AirVenture Museum. [www.av8safe.org](http://www.av8safe.org). 715-573-9873 or 715-927-8585.
- 13-14\* **KENOSHA, Wis.** - Fight Instructor Refresher Course (FIRC) at the Gateway Technical College. <http://www.dot.wisconsin.gov/news/events/air/firc.htm>
- 29-30 **BROOKLYN CENTER, MINN.** - 2010 Minnesota Aviation Maintenance Technician Conference at the Earle Brown Heritage Center. 800-657-3922 x7183. [www.dot.state.mn.us/aero](http://www.dot.state.mn.us/aero)

## APRIL 2010

- 13-18 **LAKELAND, FLA.** - Sun 'n Fun Fly-In 863-644-2431. [www.sun-n-fun.org](http://www.sun-n-fun.org)
- 14-16\* **DULUTH, MINN.** - MCOA Airports Conference, Duluth Entertainment & Convention Center (DECC). Judy Meyers 800-657-3922. [judy.meyers@dot.state.mn.us](mailto:judy.meyers@dot.state.mn.us)
- 21-22 **DES MOINES, IOWA** - Iowa Aviation Conference at the Sheraton West Des Moines Hotel. For more information, visit [iawings.com](http://iawings.com)
- 24 **BLOOMINGTON, MINN.** - Minnesota Aviation Hall of Fame at the Ramada, Mall of America Hotel. [mnaviationhalloffame.org](http://mnaviationhalloffame.org) 218-732-5100 or [nallard@unitelc.com](mailto:nallard@unitelc.com)
- 24\* **HIBBING (HIB), MINN.** - Chili & Hot Dog Feed 11am-3pm. 218-262-6377.
- 25\* **PORT HURON (PHN), MICH.** - Pancake Breakfast 7-11am. at St. Clair County Int'l Airport.

## MAY 2010

- 1\* **MIDLAND (IKW), MICH.** - Pancake Breakfast at Barstow Airport 7am-Noon. 989-835-3231.
- 2\* **SANDUSKY (Y83), MICH.** - Dawn Patrol in association with "Thunder Across the Thumb" motorcycle rally. 7am-Noon. 810-414-3009.
- 3-5 **WAUKESHA, Wis.** - Wisconsin Aviation Conference at Country Springs Hotel. [www.wiama.org](http://www.wiama.org)
- 7-9\* **BRAINERD, MINN.** - Minnesota Seplane Pilots Association Safety Seminar at Maddens (800-642-5363) on Gull Lake. [www.mnseaplanes.org/News.htm](http://www.mnseaplanes.org/News.htm)
- 15-16\* **BLAINE (ANE), MINN.** - Blaine Aviation Weekend 7am-4pm. Breakfast/Lunch Fly-In at the Golden Wings Museum. 952-292-7969.
- 16\* **BRODHEAD, Wis.** - Pancake Breakfast

7am-Noon. [www.eaa431.org](http://www.eaa431.org)

- 16\* **TAYLORVILLE (TAZ), ILL.** - Breakfast 7-11am. 217-824-9313.
- 18-19\* **SCHAUMBURG (06C), ILL.** - Illinois Aviation Conference at the Marriott Hotel (847-240-0100). For information on conference call 217-528-5230.
- 22\* **LAPEER (D95), MICH.** - Breakfast 7am-Noon at Dupont-Lapeer Airport. 810-667-1285.
- 28-30\* **JANESVILLE, Wis.** - Southern Wisconsin AirFEST featuring the USAF Thunderbirds & Canadian Snowbirds & more. 608-754-5405
- 29\* **CHESANING (50G), MICH.** - Brats-n-dogs dawn patrol at Howard Nixon Memorial Airport 11am-4pm. 810-513-4255.

## JUNE 2010

- 5\* **SPARTA (SAR), ILL.** - Fly-In & Jamboree 9am-5pm. [spartaflyin.blogspot.com](http://spartaflyin.blogspot.com). 618-215-6359.
- 6\* **AUDUBON, IA** - Breakfast 6:30-10:30am. 712-563-3780.
- 13\* **PORT HURON (PHN), MICH.** - Pancake Breakfast 7-11am. at St. Clair County Int'l Airport. 810-364-6890.
- 13\* **FLUSHING (3DA), MICH.** - Breakfast 7:30-11:30am at the Daltons Airport. 810-201-6882.
- 13\* **MANDAN (Y19), N.D.** - Breakfast 8-11am in conjunction with the Buggies-n-Blues Festival. 701-527-1950.
- 17-19\* **MASON CITY (MCW), IA** - American Barnstormers Tour 10am-6pm. [www.americanbarnstormerstour.com](http://www.americanbarnstormerstour.com)
- 20\* **ANN ARBOR (ARB), MICH.** - Breakfast 8am-? west of the control tower. 734-429-2992.
- 20\* **GRAND HAVEN (3GM), MICH.** - Father's Day Pancake Breakfast 7am-Noon along with Antique/Muscle Car Show & other activities.
- 20\* **TAYLORVILLE (TAZ), ILL.** - Breakfast 7-11am. 217-824-9313.
- 20\* **STANTON (SYN), MINN.** - Breakfast 8am-Noon. 507-645-4030.
- 20-22\* **TEA (Y14), S.D.** - American Barnstormers Tour 10am-6pm at the Marv Skie-Lincoln County Airport. [www.americanbarnstormerstour.com](http://www.americanbarnstormerstour.com)
- 24-26\* **ABERDEEN (ABR), S.D.** - American Barnstormers Tour 10am-6pm. [www.americanbarnstormerstour.com](http://www.americanbarnstormerstour.com)
- 25-27\* **MARSHALL (RMY), MICH.** - Wings & Wires 2010 first annual biplane fly-in at Brooks Field. Saturday night bonfire & movie. 269-580-0558.
- 26\* **MIDLAND (IKW), MICH.** - Pancake Breakfast at Barstow Airport 7-11am. 989-835-3231.
- 26\* **GLADWIN (MI1), MICH.** - Breakfast 7:30-11:30am at Sugar Springs Airport. 586-415-7266.
- 26-27\* **ST. CLOUD, MINN.** - "The Great Minnesota

Air Show" featuring the Blue Angels.  
www.TheGreatMinnesotaAirShow.com

- 27\* **NILES (3TR), MICH.** - Breakfast EAA hangar on the east side 7am-Noon. 574-339-9991.
- 27\* **SANDUSKY (Y83), MICH.** - Dawn Patrol in association with the Thumb Festival 7am-Noon. 810-414-3009.
- 27\* **CALEDONIA (CHU), MINN.** - Fly-In at the Houston County Airport. 507-450-2095.
- 27-29\* **BISMARCK (BIS), N.D.** - American Barnstormers Tour 10am-6pm.  
www.americanbarnstormertour.com
- 30-7/2\* **JAMESTOWN (JMS), N.D.** - American Barnstormers Tour 10am-6pm.  
www.americanbarnstormertour.com

## JULY 2010

- 1-1/2\* **JAMESTOWN (JMS), N.D.** - American Barnstormers Tour 10am-6pm.  
www.americanbarnstormertour.com
- 2-3\* **PHILLIPS, WIS.** - Price County Airport & Harbor View (on Long Lake) Fri. 7pm Aerobatic show; 9pm live music at Harbor View. SAT. 8am-noon - Breakfast by the AMVETS; 8:30am Breakfast Buffet at Harbor View; 10am aerobatic show; planes on display & plane rides; admission is free. 5pm - 2 am Lake, Rattle & Roll (3 bands) at Harbor View.  
715-339-3701 / 2626
- 3\* **WATERVLIET (40C), MICH.** - Pancake Breakfast 7am-Noon. 269-876-4921.
- 3\* **HOUGHTON LAKE (5Y2), MICH.** - Brats & Dogs 10am-4pm. Rain date 4th.  
989-578-2005.
- 3\* **AUSTIN, MINN.** - Breakfast 7am-1pm. 507-433-7115 or 507-433-1813.
- 3-5\* **ALEXANDRIA (AXN), MINN.** - American Barnstormers Tour 10am-6pm at the Chandler Field Airport.  
www.americanbarnstormertour.com
- 10\* **HIBBING (HIB), MINN.** - Mines & Pines Breakfast 8am-1pm. 218-262-6377.
- 11\* **MIDDLETON (C29), WIS.** - Breakfast 7:30am-Noon at Morey Airport (rain or shine. 608-836-1711.
- 17-18\* **DULUTH, MINN.** - Duluth Air Show featuring the Thunderbirds & Tora Tora Tora.  
duluthairshow.com

- 18\* **TAYLORVILLE (TAZ), ILL.** - Breakfast 7-11am. 217-824-9313.
- 21-25\* **KEOKUK, IOWA** - L-Bird Convention & Fly-In. Breakfast on the 24th. All pilots & Aircraft Enthusiasts Welcome!  
www.lindneraviation.com 319-524-6203
- 23-26\* **PORT HURON (PHN), MICH.** - Oshkosh Oasis, food & refreshments at St. Clair County Int'l Airport 10am-5pm.  
810-364-6890.
- 26-8/1 **OSHKOSH (OSH), WIS.** - EAA AirVenture at Wittman Regional Airport. 920-426-4800.  
www.airventure.org

## AUGUST 2010

- 1 **OSHKOSH (OSH), WIS.** - EAA AirVenture at Wittman Regional Airport. 920-426-4800.  
www.airventure.org
- 7\* **ESCANABA (ESC), MICH.** - Pig Roast 11am-6pm at Delta County Airport.  
906-786-4902.
- 7\* **SANDUSKY (Y83), MICH.** - Dawn Patrol in conjunction with the Sandusky Car Show 7am-Noon. 810-414-3009.
- 7-8\* **YPSILANTI (YIP), MICH.** - Thunder Over Michigan Air Show. 9am-5pm.  
www.yankeeairmuseum.org/airshow
- 14\* **CAMERON / RICE LAKE (RPD), WIS.** - Pancake Breakfast & Lunch 7am-1pm. Military Aircraft, Static Display.  
715-651-6878.
- 14-15\* **GLADWIN (GDW), MICH.** - Pancake & Sausage Breakfast 7am-Noon in conjunction with The Gladwin Carriage Festival (parade at 11am at fairgrounds).  
989-426-4201.
- 15\* **WATERFORD (PTK), MICH.** - Pancake Breakfast 8am-Noon at the Oakland County Int'l Airport. 248-789-5026.
- 15\* **TAYLORVILLE (TAZ), ILL.** - Breakfast 7-11am. 217-824-9313.
- 18-22\* **MINNISKA LODGE, ONTARIO** - "Midwest Flyer Canadian Fishing Fly-Out." For details email info@midwestflyer.com, or call 608-835-7063 (see midwestflyer.com and wildernessnorth.com) Reservations are handled directly through Wilderness North in Thunder Bay. Call 1-888-465-3474.
- 21\* **CAMP DOUGLAS (VOLK FIELD), WIS.** - Fly-In Open House Pancake Breakfast with

IRF/VFR & Maintenance Seminars  
Sponsored by WisDOT Bureau of Aeronautics 608-427-1899. If Flying In, You Must Pre-Register 800-972-8673.

22\* **ANKENY (IKV), IOWA** - Breakfast 7-11am. 515-554-8187.

## SEPTEMBER 2010

- 3-6\* **SIDNAW (6Y9), MICH.** - "6Y9 Labor Day Weekend Fly-In" at the Southern Houghton County Airport (Prickett Grooms Airfield). 4th is the Main Day.  
www.sidnaw.org 616-554-8860.
- 9-12\* **MOUNT VERNON (MVN), ILL.** - Gathering of Ercoupes. www.ercoupe.org
- 11\* **MIDLAND (IKW), MICH.** - Pancake Breakfast 7-11am at Barstow Airport. 989-835-3231.
- 11\* **NILES (3TR), MICH.** - "Salute to Veterans" Breakfast 7am-Noon at EAA hangar on east side of Jerry Tyler Memorial Airport. 574-339-9991.
- 18\* **DOWAGIAC (C91), MICH.** - Pancake Breakfast / Swap Meet, Classic Airplanes, Cars & Antique Tractors 7-11am. 269-449-5393.
- 18\* **OCONTO (OCQ), WIS.** - Breakfast (7-10am) & Static Display 7am-5pm at J. Douglas Bake Memorial Airport. 920-246-5620.
- 18-19\* **BURLINGTON (BRL), IOWA** - Fly Iowa 2010 "Celebrating 100 Years of Iowa Powered Flight" at Southeast Iowa Regional Airport 5am-3pm. Pancake Breakfast, Static Display, Free Airshow, etc. 319-759-4935. Email: office@birlairport.com
- 19\* **TAYLORVILLE (TAZ), ILL.** - Breakfast 7-11am. 217-824-9313.
- 26\* **PORT HURON (PHN), MICH.** - Wings, Wheels & Watercraft 7-11am at St. Clair County Int'l Airport. 810-364-6890.

## OCTOBER 2010

- 17\* **WATERVLIET (40C), MICH.** - Chili Hop Fly-In. 269-463-5532.
- 17\* **TAYLORVILLE (TAZ), ILL.** - Breakfast 7-11am. 217-824-9313.

## NOVEMBER 2010

- 11-13\* **LONG BEACH, CALIF.** - Aircraft Owners & Pilots Association (AOPA) Aviation Summit. www.aopa.org

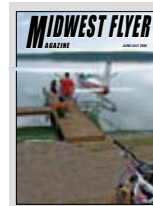
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**June 20-22 Tea, SD**  
Marv Skie-Lincoln Airport (Y14)

**June 23 Watertown, SD**  
Watertown Regional Airport (KATY)

**June 24-26 Aberdeen, SD**  
Aberdeen Regional Airport (KABR)

**June 27-29 Bismarck, ND**  
Bismarck Airport (KBIS)

**June 30-July 2 Jamestown, ND**  
Jamestown Regional Airport (KJMS)

**July 3-5 Alexandria, MN**  
Chandler Field Airport (KAXN)

**Contact - Clay Adams - 612-867-6022**  
[clay@nostalgicwings.com](mailto:clay@nostalgicwings.com)  
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**1980 Cessna R-182RG** – Dual KX-165s with dual glideslopes, KCS-55A HSI! KLN-90B GPS, 300A autopilot, updated interior, Rosen visors, Tanis heater, 275 SFOH, 7490 TT.....**\$89,500**



**1969 Piper Cherokee 6-300** – 5025 TT, 1485 SMOH, Dual MK-12D NavComs, ADF, Narco 890 DME, GX-50 GPS, Autocontrol III with S-Tec 30 Altitude Hold, WX-900 Stormscope, Knots 2U, 7 seats, Clean.....**\$69,900/trade**



**1977 Piper Archer II** - 7000 TT, 2468 SFOH, KX-170B with glideslope, MX-170C Digital NavCom, KR-86 ADF, Garmin 327 Transponder, 150XL GPS, Autocontrol IIIB, fresh annual! **\$37,500**



**1967 Piper Arrow 180** – 4180 TTSN, 530 SMOH, MK-12D NavCom With glideslope, MX-12 NavCom, ADF, 4-place intercom, Horton STOL kit, Autoflite autopilot, January annual!.....**Blowout Price of \$39,995!**



**1979 Piper Seneca II** – Color radar and stormscope, GPS, HSI, 3-bladed hot props, club seating, 135-maintained, 7150 TT, 1795/150 SMOH, 870 SPOH. Leaseback wanted! ...**\$149,950!**



**1981 Cessna Conquest II Dash 10** – Collins Proline, Bendix RDR-1100, stormscope, Argus 5000, TCAD, 4-bladed Hartzells, Dual VCRs, Part 135, SIDs complete! Fresh props, 1675 SMOH, 9725 TT. Leaseback wanted! .....**\$1,575,000!**

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## MIA Hunters Seek Adventurers To Help Verify Crash Sites

**M**idwest Flyer Magazine was the first to report three successful expeditions to Papua New Guinea by MIA HUNTERS organization headquartered in Randolph, Minnesota (see October/November 2007 issue).

At that time, they discovered 12 previously undiscovered crash sites of WWII warbirds. The U.S. Army's recovery group in Hawaii followed with recovery of remains.

For May 2010, the MIA HUNTERS have now upped the ante, funding 10 native trackers for 20 months to find more undiscovered crash sites in dense jungle territory, much of which has not been previously visited by white people. Reporting monthly with supporting photographic evidence, over 40 new crash sites have already been mapped for the May 2010 missions. Four MIA Search Groups, each of 10 persons and each led by two mission leaders, include four ladies. Over 30 people

have already signed on leaving four vacant positions to be filled. While the upfront cost of \$8,500 plus \$3,000 airfare is a major consideration, all but the airfare is tax deductible as MIA HUNTERS is a registered Minnesota charity.

Organized and led by Bryan Moon, with 24 search missions of experience around the world, no mission member has ever been lost or left behind.

Each group will be taken by boat, canoe or bus to a jungle base-camp from which daily sorties to the crash sites will be made. Accommodation will be in tents with a camp cook and staff in attendance. A complete briefing will be given in advance and all arrangements including travel, hotels, ground transportation, trackers and guides plus visas, food and jungle supplies are all included in the price.

The 2010 missions are being promoted as the biggest search for MIAs by civilians seems reasonable given the number of missing aircraft

already discovered.

*"The lifelong practice by civilians and the Army of responding to a crash site report and sending search teams all over the world to look for one site at a time, is archaic," says Moon. "Our practice does not wait for a report to come in. We plan and organize massive searches of an area in which many lost aircraft and their crews are yet to be found before sending a search group to authenticate and GPS the site locations for follow-up by U.S. Army professional retrieval personnel."*

Their current example is Papua New Guinea where there are still hundreds of lost WWII aircraft and their crews still undiscovered. With an objective of a minimum of 60 sites, plus 20 they have already discovered, is achieved, the total of 80 discoveries will be unprecedented and serve, as a model for more effective MIA search and recoveries in the future.

For additional information or to reserve a position on the recovery team, contact Bryan Moon at 507-263-7050, or via email at [bryanmoon@bevcomm.net](mailto:bryanmoon@bevcomm.net). □

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*Aviation is proof that given, the will,  
we have the capacity to achieve the impossible.*

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Edward Vernon Rickenbacker

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### DESTINATIONS FROM PAGE 55

for a little sightseeing tour of the area. He said I needed to fly one-half hour with one of their instructors before they would hand over the plane to me for solo flight. No problem, I thought. I would ask the instructor what there was worth seeing.

The instructor who would fly with me walked into the small lobby while I was still talking at the counter. He asked me a little about my background and purpose for the flight. I showed him my logbook. He saw that all of my 100-plus hours have been in the Midwest. "I grew up in California, though," I explained. "I've seen every corner of the state by a car. I want to

see it by air."

After filling out some paperwork and renting a headset, I had an airplane and a personal tour guide. The instructor ended up taking me to some of his favorite places in the area.

Don't get me wrong. There are times when flying my plane is the whole purpose of the vacation and the destination is just an excuse. My husband is a pilot, too, and we love to fly together. One wonderfully memorable vacation of ours started with no destination in mind. We took a week off work and planned to fly wherever the weather was best. We zig-zagged across the country, visiting friends, family, a national monument

and a few obscure towns off the beaten sky way. It is great fun to be a nomad with an airplane; I highly recommend it.

When time or money keep you from flying your own plane across the country, though, buy a cheap ticket on a big jet, and plan to fly upon arrival. The professionals can get you to and from your destination in a matter of hours, giving you more time to see your destination.

*EDITOR'S NOTE:* Karen Workman is an instrument rated Private Pilot. She lives in Northfield, Minnesota with her husband, Eric, who is also a pilot. □

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