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Photo taken during EAA AirVenture 2007 by Spencer Thornton/EAA (www.AirVenture.org).

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Dialogue

In Just 60 Days!

by Dave Weiman

n the past 60 days since we published the last issue of *Midwest Flyer Magazine*, a lot has been going on in the country and in aviation in particular.



The obvious increase in "fuel prices" has gotten our attention, with more and more pilots shopping around for the best prices they can find, hopefully not running out of fuel in the meantime. Others are working hard at finding solutions as to why our U.S. oil industry has chosen to stick it to their fellow Americans, and walk in unison with foreign suppliers

in raising their prices. Still others are working feverishly to take conservation measures and are looking at wind, solar, natural gas, and bio fuels to lower our dependency on foreign oil. It is disturbing that Congress and the White House have allowed themselves to get behind the power curve on an issue, which affects our nation's economy and national security. But it is, what it is, and we need to deal with it.

At the same time, we are amazed with the resiliency of the aviation community, and despite rising costs, new pilot starts continue – among them, our own Geoff Sobering, who is responsible for taking many of the beautiful photos you see featured in *Midwest Flyer Magazine*. And sometimes all we need to do is fly to inspire others to learn how to fly, as was the case with a local neighbor.

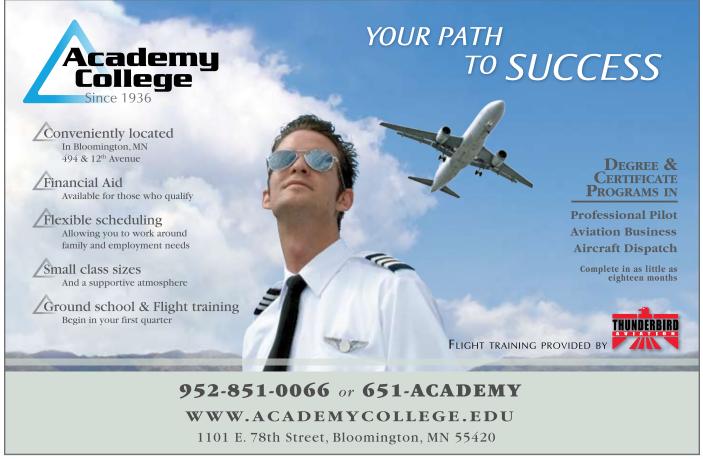
The neighbor has always had an interest in learning how to fly, and I would pass on old charts for him to use in conjunction with his flight

simulator programs on his home computer for familiarization purposes. A few weeks ago, he informed me that as soon as his children are all on their own (he has one more child to go), that he plans to fulfill his lifelong dream. In the meantime, he and his wife gave their high school son an introductory flight lesson for his 16th birthday. Apparently, he got the bug from watching me fly, so sometimes we do not even know when we have had an impact on a prospective pilot.

Also within the last 60 days, it was announced that Phil Boyer will be stepping down as president of the Aircraft Owners & Pilots Association (AOPA) at the end of the year. This was a decision we expected in time, but one which we hoped would never come.

In his 18 years with AOPA, Phil has orchestrated an all-star cast of professionals at headquarters, who have looked out for GA's interests well as evident by the increase in membership

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Flying DME Arcs[©]

by Nihad E. Daidzic

he FAA emphasizes the requirement for the instrument-rated pilot to exercise proficiency in intercepting and tracking NAVAID courses and radials, vet it provides little

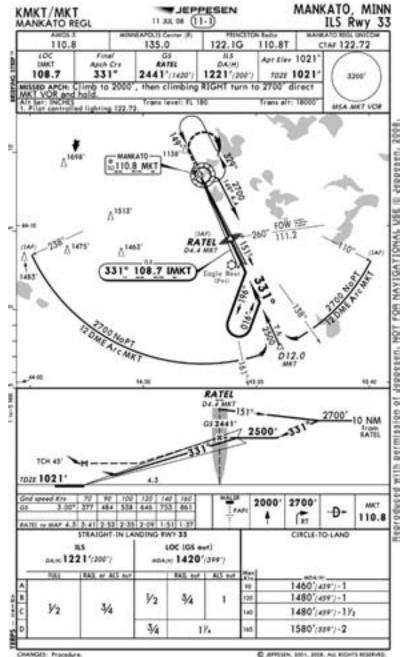


Nihad E. Daidzic

information on how to do it. Intercepting and tracking Distance Measuring Equipment (DME) arcs contain all the skills and knowledge necessary for flying other intercepts and tracking straight courses.

Properly flying DME arcs is not all that difficult and is one of the more beautiful and creative segments of IFR operations. However, it seems





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HondaJet Midwest To Call Aurora Home!



Representatives of HondaJet Midwest, Chicago Piper and Des Moines Flying Service (L/R): Julie Cermak, John G. Lowe, Dee Price, Howard Gregory, John Lowe, Chris Siberz, and Don Jay.

AURORA, ILL. – HondaJet Midwest, a sales and service representative for Honda Aircraft Company, Inc., announced July 1 that Aurora Municipal Airport (ARR) in Aurora, Illinois, will be the home for the HondaJet sales and service facility servicing the Midwestern United States. One

of five HondaJet dealership locations in the United States, the distinctive facility is expected to be completed in mid-2010, in anticipation of the first deliveries of the HondaJet.

"The HondaJet Midwest team, in cooperation with Honda Aircraft Company, conducted a thorough analysis of airports and communities in the Midwest in search of the perfect fit," said John M. Lowe, President of HondaJet Midwest. "The decision was difficult but ultimately Aurora and the State of Illinois provide an ideal balance of culture, vision, and proximity to major Midwest markets."

At the National Business Aviation Association Convention late last year, for the first time, Honda Aircraft Company showed its proposed design specifications for standalone Honda-Jet dealership facilities that will be established throughout the United States over the next several years. The facilities will feature a large hangar











(TOP LEFT L/R) John Lowe, President, HondaJet Midwest, and Aurora Mayor Tom Weisner.

(LOWER LEFT L/R) Dan Watring and Dan Watring, Jr. of VJS Lincoln, Inc., contractors; John Lowe, President, HondaJet Midwest; and Brian O'Connor of Reynolds, Smith & Hills, Inc., architects.

(Top Right) HondaJet.

(LOWER RIGHT) Looking west down Runway 9/27 at Aurora Municipal Airport, Aurora, Illinois. HondaJet Midwest will be located in the northeast quadrant (black X marks the construction site).

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for service operations and will be designed to provide a new level of customer sales and service support in the light jet class. The multi-million dollar investment in the HondaJet Midwest facility will feature customer comfort, product display and high-technology service capabilities new to the business aviation environment.

Big selling points for the Honda-Jet over other light jets in its class are the aircraft's "fuel efficiency and speed," said Lowe. Honda has always been environmental conscious, and the HondaJet is representative of that philosophy.

HondaJet, Honda's first-ever commercial aircraft, lives up to the company's reputation for dynamic performance, together with superior efficiency, delivering class-topping cruise speed and fuel efficiency, greater luggage capacity and a more spacious cabin with seating for up to seven people, compared to other similarly sized aircraft. All major assembly and testing of the prototype HondaJet has been conducted at the company's existing Greensboro, North Carolina, facility, which opened in 2001 as an extension of Honda's global research and development operations. The new 400,000 sq. ft. world headquarters and manufacturing facility in Greensboro will open this summer.

Working closely with the Federal Aviation Administration, Honda Aircraft Company anticipates its first test flight of a conforming model in early 2009, with the overall timetable targeting type certification in 2010. Deliveries of the HondaJet are scheduled to begin later in 2010.

Flight Safety International will provide the training for HondaJet owners at HondaJet's Greensboro, North Carolina manufacturing facilities. HondaJet has 100 non-refundable deposits at \$75,000.00 each. As the aircraft nears completion, the deposits increase to \$160,000.00, \$320,000.00, and \$480,000.00.

The City of Aurora approved a lease to HondaJet Midwest. The lease will allow HondaJet Midwest to build

the \$8.5 million sales and service facility. The lease runs for 20 years, with an option for two additional five-year terms.

"Honda is an easy sell, whether it's a car, lawnmower or jet aircraft," said Aurora Mayor Tom Weisner.

Among those attending a press conference at Aurora Municipal Airport on July 1 were Aurora Mayor Tom Weisner; Aurora Airport Manager, Robert A. Rieser; Dan Watring and Dan Watring Jr. of VJS Lincoln, Inc., contractors for the new facility; Brian R. Welker of Crawford, Murphy & Tilly, Inc.; and Rick Cantalupo of the Illinois DOT Division of Aeronautics. Among those attending representing HondaJet Midwest, Des Moines Flying Service (DMFS), and Chicago Piper were John Lowe, President; Howard Gregory, Founder of DMFS; Dee Price, Vice President, Sales Administration; Don Jay, Director, Special Projects; John G. Lowe, Sales Representative, Chicago Piper; Chris Siberz, Senior Sales Representative, HondaJet Midwest; and Julie Cermak, Administrative Assistant. Hosting the event was J.A. Air Center President Brad Zeman and Operations Manager Randy Fank in the J.A. Air Center corporate hangar complex, located on the south end of the airport. HondaJet Midwest will build its new facilities on the northeast quadrant of the airport.

Don Jay of HondaJet Midwest presented a virtual tour of the new facility, which will consist of 35,000 sq. feet for phase one, 13,200 sq. ft. for phase two, and another 13,200 sq. ft. for phase three.

HondaJet Midwest

HondaJet Midwest, LLC is a wholly owned subsidiary of Des Moines Flying Service, Inc. (DMFS), founded in 1939 and headquartered in Des Moines, Iowa. DMFS is dedicated to providing extraordinary aviation sales and support services. Additionally, DMFS operates Chicago Piper, also located at Aurora Municipal Air-

port. For additional information about HondaJet Midwest, contact John M. Lowe at 877-686-0028, and refer to their website: www.hondajetmidwest.com.

The other four locations for HondaJet sales and service facilities in the United States include Tallahassee, Fla.; Salt Lake City, Utah; Phoenix, Ariz.; and Albany, N.Y.

Honda Aircraft Company, Inc. is a wholly owned subsidiary of Honda Motor Co., Ltd. Founded in Japan in 1948, Honda began operations in the U.S. in 1959 with the establishment of American Honda Motor Co., Inc., Honda's first overseas subsidiary. Additional information about HondaJet is available at www.hondajet.com.

Aurora's Airport Director, Robert A. Rieser

ey to the success of any aviation business located on an airport is the cooperation between the business operator and airport management. Aurora, Illinois Municipal Airport (ARR) Director, Robert A. Rieser, acted as a facilitator in attracting HondaJet Midwest and others to the Chicago-area airport. Rieser received his Bachelor of Science Degree in Civil Engineering from the University of Illinois. He is an Accredited Airport Executive, licensed professional engineer in the state of Illinois, an instrument-rated pilot, Chairman of the Illinois Public Airports Association, and a member of the American Public Works Association, American Society of Civil Engineers, and Illinois Society of Professional Engineers.

Rieser was named "Airport Director of the Year" in 1995 by the Illinois Public Airports Association, received the 2005 "Louis E. Peters Memorial Service Award" from the FBI, was named "Illinois Aviation Ambassador" by Illinois Gov. James Thompson, and served on the Board of Directors of ARR Events, Inc., and as President of the Illinois Aviation Hall of Fame.

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For more information about NationAir, visit our website at www.NationAir.com.



Robert A. Rieser

AURORA'S AIRPORT FROM PAGE 12 Rieser is now the senior airport administrator in the state of Illinois, and is one of only six airport managers in the country to hold both PE and AAE accreditation

Under Rieser's direction. Aurora Municipal Airport was named "Reliever Airport of the Year" in 1991 by the Illinois Division of Aeronautics, and received the "Airport Safety Enhancement Award" from the FAA, also in 1991.



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DIALOGUE FROM PAGE 6

and the respect AOPA has garnered throughout the aviation community, in state capitols, and in Washington. Phil's strong communication skills, combined with a personality that has appealed to all pilots and aircraft owners, regardless of the aircraft they fly, makes him a tough act to follow. Knowing that he will continue to be an advocate for general aviation will help.

Replacing Phil Boyer as the head

of the world's largest pilot organization is Craig L. Fuller – a political insider who we expect will help general aviation immensely.

Read more about Craig Fuller beginning on page 26.

FLYING DME ARCS® FROM PAGE 9

that many pilots would avoid it at any cost. DME arcs are usually initial approach segments of SIAPs, but sometimes they can be also utilized as a final approach segment or as a part of SID/DP procedures.

The best and the easiest way to fly an arc, in my opinion, is to have a Radio Magnetic Indicator (RMI) with the DME distance information. By keeping the RMI's VOR (or ADF) needle pointer at about 3 or 9 o'clock while correcting for winds, one can fly accurate arcs. DME arcs are flown as a series of straight segments. Many modern EFIS-equipped aircraft have the ability to emulate the RMI. Using a traditional VOR is more difficult, but still easily manageable if you know how to use it optimally.

The slant, line-of-sight, DME distance is used to establish and maintain the arc radius. Simultaneously, by keeping the DME-derived groundspeed (GS) zero assures that the radius of curvature remains constant. As DME GS provides rate information, one can predict the flight path, and promptly make small heading corrections before they become evident on the DME distance display. DME derived GS information is based on the relative motion to the DME antenna and is therefore more useful than the Global Positioning System (GPS), which shows actual GS independent of the heading.

When intercepting a DME arc on a perpendicular heading, I suggest leading the standard-rate turn by 1% of the GS. This simple rule works well for any aircraft flying at groundspeeds in the range of 100 - 250 knots. This is an approximate and conservative relationship, but works better than the lead distance of 0.5% of GS, or often used ½ nautical mile lead distance.

One can also use a fixed lead distance of 1 nm, which works well for the groundspeeds between 100 and 150 knots. A ½ nm lead could be used if GS is below 90 or 100 knots.

To approximate a standard-rate-turn, use bank angle equal to 15% of true airspeed (TAS). Use the DME or the GPS distance to stay on the arc. If the DME/GPS distance is changing slowly, make small heading changes. If the distance changes rapidly, make larger heading changes! Usually 5-10° of heading change at a time is sufficient. Correct for wind by adjusting the aircraft heading. There is no reason why an arc cannot always be flown with an accuracy of ±0.1 nm (±600 feet).

One can set the final approach course on the HSI/VOR-1 NAV radio and use VOR-2 to visualize the position on the arc. One Line-of-Position (LOP) is the arc itself, and the second LOP is the current radial from the VOR (p- θ navigation). Using the "TO" indication and the 10° radial changes on VOR-2 can help in orientation and remind us when the intercept turn should begin. Remember that the localizer cannot be used to define and fly an arc as it does not provide an omni-directional signal.

According to the FAA, a lead radial (LR) provides at least 2 nm lateral distance from the final approach course. On the other side, FAA defines LR as a point where the intercept turn should start. In reality, it is impossible to give one general LR where all intercepts should start as that depends on many factors. For example, if a 100-knot airplane begins a standardrate turn at LR, it will turn well inside the final course never intercepting it. What will happen in reality is that a pilot, hopefully, will stop the turn and take a 30-45° intercept angle until the

localizer needle starts moving. Cutting corners is not a good IFR operational practice.

In the case where the arc-controlling VOR (or NDB) is terminal and close to the localizer, one can use an intercept radial based on the angular difference between the localizer course and the VOR radial. That lead angle will be calculated from $\alpha =$ 60/R, where the intercept angle α is given in degrees, and the arc radius R is in nautical miles. For example, if you fly the 12 nm DME arc transition at Mankato, Minnesota (KMKT) ILS RWY 33, one should start a standard-rate-turn when the Mankato VOR radial is 146° (151-5 = 146) or 156° (151+5 = 156) if you are coming from east or west respectively. This is because 60/12 results in a 5° intercept angle. This expression is quite reasonable and sufficiently accurate for any airplane having GS in the range between 100 and 150 knots and turning at a standard rate. This intercept technique guarantees that possible course overshoots, if at all, will be small. It goes without saying that a pilot should always make necessary corrections.

Keep in mind that the VOR equipment has inherent errors and the radials will not be exact. Using designated LRs on the KMKT ILS approach plates (138° and 161°) in a slow aircraft will result in a premature turn. If the arc radius were 30 nm, one would use $60/30 = 2^{\circ}$ intercept angle. If on the other side the arc radius were 7 nm, one needs to start the intercept at a 8.5° lead on each side of the localizer course using VOR radials. When flying a VOR or NDB approach with a DME arc initial approach transition, calculate the lead angle and use it to start the intercept turn. In any case one should maintain approximately 30° intercept if not already established.

Pilots have to rely on simple, yet sound principles and rules-of-thumb which are derived from the physical laws and mathematical approximations. As many good pilots have said before – flying is nothing else but con-

stantly correcting for small deviations and errors.

EDITOR'S NOTE: Nihad E. Daidzic, Ph.D., is an Associate Professor of Aviation at Minnesota State University-Mankato. He is also an Adjunct Associate Professor of Mechanical Engineering; Airline Transport Pilot certified and "Gold Seal" CFI-IA, ME-I, CFI-G, AGI, IGI. (Nihad.Daidzic@mnsu.edu). Website: http://ed.mnsu.edu/aviation/faculty/daidzic.html.

AVIATION LAW

LLC Statements In Support Of Aircraft Registration Should Be Drafted Carefully

by Greg Reigel

Attorney At Law Reigel & Associates, Ltd./Aero Legal Services

recently had the opportunity to review an "LLC Statement in Support of Aircraft Registration," which was prepared by another attorney. This statement is required when



Greg Reigel

the registered owner of an aircraft is a limited liability company ("LLC"). As you may know, 49 U.S.C. 44102 requires that the owner of a U.S. registered aircraft be a U.S. Citizen. The LLC Statement helps the FAA confirm that the LLC and its members (owners) are all U.S. citizens, as defined in 49 U.S.C. 40102(a)(15).

When the LLC Statement is prepared, it is important to make sure the information provided to the FAA is not only accurate, but also consistent. For example, if the LLC Statement states that its members manage the LLC, then the individual signing the form needs to be a member and his or her title on the signature block should include the word "member." If the individual's title is listed as "manager" or some other officer (e.g. CEO, CFO, etc.), the FAA will not accept the statement and will require either a corrected LLC Statement, organizational documents to show that the individual signing is a member of the LLC, or both.

This type of situation can result in additional administrative time and energy to correct the situation and, ultimately, will delay registration of the aircraft with the FAA. To avoid this delay, it is best to either review the FAA's guidelines to confirm that the LLC Statement is prepared

properly or consult with an aviation attorney familiar with aircraft registration matters. For further information on LLC aircraft registration, you can review the FAA's information sheet on the topic at http://www.faa.gov/licenses_certificates/aircraft_certification/aircraft_registry/media/LLCINFO.PDF.

EDITOR'S NOTE: Greg Reigel is an attorney with Reigel & Associates, Ltd./ Aero Legal Services, located in Hopkins, Minnesota. He represents clients in aviation and business law matters (www.aerolegalservices.com, (952) 238-1060, greigel@aerolegalservices.com)



FLY-INS & AIR SHOWS





Thunder On The Lakeshore Features Air & Space Greats!

Story & Photos by Geoff Sobering

Tith 16 years of experience, Curt Drumm of Lakeshore Aviation, and the Thunder on the entire Lakeshore air show committee, have a pretty good idea of what makes for a good air show and how to make it happen. This year's show was held June 6-8 at the Manitowoc County Airport (MTW), Manitowoc, Wis.

Starting off each show was the Canadian Skyhawks Parachute Team. Their specialty is "multi-person canopy work," where two or more skydivers link together and fly their parachute canopies in various combinations.

John Mohr returned for his 15th year at Thunder on the Lakeshore. Chosen as one of the best air show performers by *Smithsonian Air & Space Magazine* in 2007, John gets his stock 220 hp vintage Stearman biplane to do things that no other pilot can, like hovering before the crowd, nearly touching the crowd, and moving at what seems to be about 20 kts.

Steve Oliver, and his wife Suzanne Asbury-Oliver, were also listed in *Air & Space Magazine's "Guide to the Greats."* They returned to Manitowoc with their Oregon Aero Super Chipmunk. During the day, Steve flies his "SkyDancer" aerobatic routine. At

night, with pyrotechnics bolted to the ends of the wing, he transforms the plane into the "FireDancer." Suzanne uses the plane for old-fashioned skywriting when Steve isn't flying.

Another long-time performer at the show, Fowler "Big Dog" Carey, was grounded due to mechanical problems with his T-33 jet. Luckily, Paul Keppeler stepped in with his Canadair T-33 Silver Star. Even though he wasn't performing, Fowler still came to the show, and was a particularly active participant in the charity auction at the Friday night party.

Fans of high-intensity aerobatics got great performances from Michael Vaknin with his Extra 300L and John Klatt flying the "Air National Guard" Staudacher S300D.

Another regular at Manitowoc, Vlado Lenoch, couldn't bring his P-51 Mustang "Moonbeam McSwine" this year because it was in the final stages of a complete rebuild. Thankfully he was able to find a "loaner" Mustang to fly in the U.S. Air Force "Heritage Flight" with the "Viper East" F-16.

Rounding out the bill was the formation flying team of Harvey Meek, Paul Hornick, and David Monroe in their "Team Aerostars" Yak-52s, and a U.S. Air Force F-16 Falcon.

Weather is an ever-present com-

Air show performer, John Mohr of St. Paul, Minnesota, and his 1943 stock 220 Stearman.

ponent of air shows, and in 2007, fog prevented Steve Oliver from flying his "pyrobatics" routine over the "balloon glow" at the harbor Saturday night. This year, high winds and scattered storms were the story all weekend. Luckily, the storms in the area kept clear of Manitowoc Friday evening and Saturday, and all the performers were able to perform. The high winds, however, kept the hot-air balloons in their trailers for the "balloon glow" planned for Friday and Saturday nights. Undaunted, Saturday evening the resourceful balloonists unpacked their baskets and entertained the crowd downtown with huge bursts of flame from their burners. An unplanned extra for the downtown revelers was a full-afterburner fly-by by the Canadian CF-18 jets as they arrived Saturday night.

The good luck with weather ended Sunday. Morning rain delayed the start of the air show, and just as the rain stopped, the wind switched to the east and blew fog inland from Lake Michigan. At about 2:00 p.m., it was clear the show would have to be cancelled.

Thunder on the Lakeshore is my favorite small air show in Wisconsin (maybe even my favorite air show, period). The venue is small and intimate, the performers are top notch, and the variety from balloons through jets is great.







The Best of People & Planes Turn Out For EAA Chapter Fly-In Breakfast

Story & Photos by Geoff Sobering

MIDDLETON, WIS. - The fourth annual fly-in pancake breakfast hosted by EAA Chapter 1389 and Morey Airplane Company at Middleton Municipal Airport - Morey Field (C29), July 13, served 900 meals to visiting pilots, their passengers and the local community.

Special effort was made to protect spectators from landing and taxiing aircraft - something which many flyins are lax in doing.

While there was not an airshow, local aerobatics instructor, Mike Love, took his Yak-52 around the pattern a couple of times to give everybody a sample of the great sound of a radial engine. Other local planes on static

display were Larry Landucci's Zenith 801, Bill Rewey's Pietenpol Aircamper, Skot Weidemann's Luscombe 8A, Bill Landucci's Pulsar III, and

Bob Davis' Acrosport II.

Management and tenants at Middleton Municipal Airport-Morey Field have worked hard at public relations with local residents, including requesting pilots to follow strict departure procedures on a daily basis to avoid residential areas.







Mike Wiskus of Buffalo, Minn., in the Lucas Oil Products S-2B Pitts.

BUFFALO, MINN. – You could say that it was like a "buffalo stampede" when the community of Buffalo, Minn., held a fly-in and air show, June 8, 50 miles west of Minneapolis. Lots of fly-in aircraft, lots of people, and not enough parking for the hundreds of cars that unexpectedly arrived. But air show performer and producer, Mike Wiskus of Buffalo, said he made sure there were plenty of porta-johns and water.

"We kind of threw the show together at the last minute, and didn't expect the crowd that we got," said Wiskus, just prior to performing his act in his S-2B Pitts Special, sponsored by Lucas Oil Products (www.sportaerobatics.com). Also performing was Mike Niccum of Webster, Minn., in his Staudacher S-300 monoplane.

A car show was held the same day at the fairgrounds across the road from the airport, which may have accounted for some parking problems, but it may have likewise contributed to attracting some spectators who might not otherwise attend the show. There could have easily been 5,000 people at the air show alone!

The crowd was appreciative of the free family entertainment, and for many, the first time they had ever attended an air show.



(L/R) Fly-In pilot Jerry Chapman of Lake Elmo, Minn., with Osceola, Wis. pilots Bob Poutre, Dan Burch, Brandon Burch, Jeff Meyer, Sandy Thill, John Handrahan, and Greg Huberty.

Low Turnout At Fly-In Attributed To Severe Weather

AMERY, WIS. – Local pilots told *Midwest Flyer Magazine* that it is not uncommon for 100 aircraft to fly into the annual fly-in breakfast at Amery Municipal Airport, but severe weather south of Amery was attributed to a very low turnout, June 7. No more than a handful of aircraft flew in for the fly-in breakfast, and most of those came from nearby Osceola, Wis. The event was saved by pilots who drove to the event, and a good turnout of local residents.

Blakesburg Fly-In To Feature Rare Hisso JN-4H Jenny

BLAKESBURG, IOWA – One of the rarest and most historic airplanes in the United States, Frank Schelling's 1918 Hisso powered JN-4H Jenny, is scheduled to appear at the Antique Airplane Association's Annual Invitational Fly-In at Antique Airfield in Blakesburg, Iowa, August 27 to Sept. 1.

"While there are several Jennys flying out there powered by OX-5 engines, Schelling's Hisso powered Jenny is one of only two flying in the world," said Brent Taylor, Executive Director of the Antique Airplane Association. "Since the theme of this year's fly-in is "Air Mail Days" where we will recreate and celebrate the 90th anniversary of scheduled airmail service in the United States, the Hisso powered Jenny is the key to authenticity for this event."

In the early months of 1918, the first regularly scheduled air mail service was funded by Congress and the first route was between New York City and Washington, D.C. U.S. Army Major Reuben H. Fleet was picked to manage the flights. However, Fleet knew that the best airplanes available could not fly even half the distance required. Fleet ordered the Curtiss Company to replace the 90 hp OX-5 engines in the Army's Jennys with more powerful 150 hp Hispano-Suiza engines. He also added hoppers in the front seat for mailbags and extra fuel tanks. The first airmail airplane in the United States was the Hisso-powered Jenny.

Frank Schelling's Jenny was built in 1918. He spent over 32 years restoring it. Every fitting, every stitch, every bolt was researched for authenticity. The airplane has been the recipient of many awards including the 2006 Grand



1918 JN-4H Jenny

Champion award for the Rolls-Royce Aviation Heritage Invitational. Schelling keeps the Jenny at the Schellville Aerodrome near Sonoma, Calif.

Of the 30 plus different airmail configured aircraft invited, 11 have confirmed their participation, including the only flyable Boeing model 40, four "Square Tail" Stearmans, two Straightwing Wacos and others.

The AAA/APM Invitational Fly-in is a private event open only to members of the Antique Airplane Association, their guests and members of affiliated type clubs. However, anyone with a sincere interest in antique airplanes, and the AAA's programs to "Keep The Antiques Flying," is welcome to join (www.AntiqueAirfield.com).

NATIONAL NEWS

AOPA Supports Move To Lower Gas Prices

FREDERICK, MD. – With avgas prices hovering between \$5 and \$7 a gallon and auto gas prices double that of a year ago, nearly three-quarters of AOPA members have scaled back their flying. Looking for any way to assist members in what is becoming an aviation fuel crisis, AOPA has joined

a new, rapidly growing coalition recently that is led by the transportation industry to do just that: Stop Oil Speculation Now (S.O.S. Now).

The coalition acknowledges that we need to increase domestic supply, oil exploration, alternative energy sources, and conservation. But we also need fair markets, curbing excessive speculation with tough, fair rules that protect consumers and lower prices.

AOPA hopes that this ultimately leads to a national energy policy that Congress can adopt.

The airline industry, airports, bus and trucking associations, organized labor groups, the petroleum marketers association, and members of Congress have also joined the list of supporters.

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AIRCRAFT

First F/A-22s **Delivered To Langley AFB**

LANGLEY AFB, VA. - In May, Langley AFB in Virginia, became the first operational U.S. Air Force Base for the F/A-22 Raptor. The F/A-22 is replacing the F-15 Eagle at the base.

In actual in-flight (simulated) combat operations, two F/A-22s were able to operate without detection while they went head-to-head against eight (8) F-15s. The F/A-22s scored missile hits (kills) against all of the F-15 aircraft, and the F/A-22s were never detected by either the F-15s or ground based radar.

The F/A-22 is America's most



F/A-22 Raptor

advanced fighter aircraft for the 21st Century. They are built out of titanium and carbon fiber. The aircraft is so advanced that if their on-board locator

is switched off, even our own satellites can lose track of them. They're the first military aircraft ever built which are equipped with a 'black-out button,' enabling the best conditioned fighter pilots to maintain consciousness up to the vicinity of 15+ Gs. The Raptor is capable of making 22+ G turns. If some day an adversary builds a missile that is capable of catching up to one of these airplanes and a Raptor pilot sees that a strike is imminent. he hits the 'black out button,' and the airplane makes a virtual U-turn, leaving the missile to pass right on by. Throughout this maneuver, the pilot will temporarily lose consciousness, so the Raptor then automatically comes back to straight and level flight until the pilot wakes up.

Piper To Expand Operations In Florida

VERO BEACH, FLA. - Piper Aircraft, Inc., the State of Florida and Indian River County have announced an agreement that will keep the gen-

eral aviation manufacturer's headquarters and manufacturing facilities in Indian River County.

The decision to stay came after an extensive site selection process that addressed fundamental issues and needs that Piper cited as vital in remaining competitive and prospering in what is a very challenging industry.

River County and the State of Florida provided Piper with a \$32 million incentive package to keep them in Florida. An economic study revealed that Piper contributes \$518 million per year to the local economy. The agreement ended a two-year, site-selection review process that in recent months had narrowed the field to three locations, including Piper's current site in Vero Beach, Fla.

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"The Jet" by Cirrus, **Makes Inaugural Flight**

DULUTH, MINN. - Cirrus Design Corporation announced that "The-Jet" prototype (N280CJ) made its first flight at approximately 10:00 AM CDT, July 3, 2008. The 45-minute flight took place at the company's worldwide headquarters at the Duluth International Airport, Duluth, Minn., and the aircraft performed flawlessly.

The-Jet is an all new personal aircraft that blends the best of both the high performance single-engine class and the very light jet (VLJ) category. Unsurpassed interior space, single engine fuel efficiency, flexible seating options for a family of up to seven, state-of-the-art advanced avionics and flight systems and the Cirrus Airframe



Parachute System (CAPS) are each hallmarks of the new design.

"The-Jet serves as a smarter, simpler and more efficient way to use transportation dollars" said Cirrus Chairman and CEO Alan Klapmeier. "Today's first flight of The-Jet holds the unique promise of redefining general aviation. It provides an entirely new transportation option for personal and business travel."

The-Jet is technologically advanced and at the same time designed and engineered to be simple to fly, just like the Cirrus SR20 and SR22 piston aircraft. The aircraft is powered by a Williams International FJ33-4A-19 engine. It is expected to fly at about 300 kts at a maximum operating altitude of 25,000 feet, well below airline traffic. The-Jet marks the first application of the v-tail on a major consumer aircraft in 60 years, which was facilitated due to a better understanding of aerodynamics.

AIR RACES

Purdue Places In Top 20 In All-Female Air Race Classic

by Kim Medaris

WEST LAFAYETTE, IND. – Two aviation students from Purdue's College of Technology placed third among college teams and 16th overall in the 32nd annual cross-country Air Race Classic. The winners were announced June 29 at a banquet in Mansfield, Mass.

Marie Janus, a May graduate from Valparaiso, Ind., was the captain of the Purdue Air Race Team, and Juliana Lindner, a junior from Hanover Park, Ill., was the co-pilot. Purdue was one of 33 teams total and three collegiate groups competing in the race.

Janus said they were disappointed with their finish, especially among the other two college teams. Embry-Riddle Aeronautical University in Daytona Beach, Fla., placed first in the collegiate division, and Western Michigan University placed second.

"The leg from Frankfort, Ky., to Franklin, Pa., was definitely the one that brought us down from the top 10 and from winning the collegiate trophy," said Janus. "We had to deviate and land due to low clouds and wait for them to pass and break up. I'm disappointed we had to do this, but it was the right choice for that situation."

In 2007, Purdue's team placed first among college teams and fourth overall.

This year's race started in Bozeman, Mont., and continued to Miles City, Mont.; Aberdeen, S.D.; Mason City, Iowa; Decatur, Ill.; Frankfort, Ky.; Franklin, Pa.; Saratoga Springs, N.Y.; and Mansfield, Mass. The total distance covered was 2,009 nautical miles (2,312 statute miles).



Purdue Air Race Team co-pilot Juliana Lindner (left) and team captain Marie Janus stand in front of their Piper Warrior III upon their return to Purdue's West Lafayette, Ind., campus July 1 after competing in the Air Race Classic.

The Purdue team, flying a 2000 model year Piper Warrior III that the group named "Danica," won prizes for some of the segments on the journey.

Each Air Race Classic team flies a stock aircraft with no modifications. The teams are then assigned a handicap based on their airplane's predetermined average cruise speed.

Teams in the Air Race Classic win based on the efficiency and accuracy they exhibit in every aspect of the race. A team is rated based on its performance compared to its airplane's handicap.

Because of the nature of the scoring, it is impossible to gauge a team's performance in relation to other teams until the competition is over.

Purdue teams have competed in the Air Race Classic for the past 14 years, finishing first overall in 1996, the first collegiate team ever to do so.

The Air Race Classic is the longest-running, all-female airplane race in the world. Its roots date back more than 70 years when the Women's Air Derby brought pilots such as Amelia Earhart, Bobbi Trout and Ruth Elder to an air race from Santa Monica, Calif., to Cleveland, Ohio.







GREAT LAKES REGIONAL REPORT

by Bill Blake AOPA Great Lakes Regional Representative

Borrowing From Aviation To Balance The Budget!

ost of the states in my region have overall funding problems, which have trickled down to state support for airports.



As you may remember, in 2003, the **Minnesota** legislature transferred \$15 million from the state aeronautics fund to shore up the general fund. The legislation required the funds be returned to the aeronautics fund by July 1, 2007. However, the transfer did not occur until May 21, 2008. Just a few weeks later, in the waning hours of this year's session, a new bill was passed requiring \$15 million to again be transferred from the aeronautics fund to the general fund, this time with no repayment provision!

Many state airport capital improvement projects in Minnesota have been put on hold, leaving Minnesota airports without money for development and repairs, or the matching funds needed to receive as much as \$160 million in federal improvement grants.

It should be remembered that those monies in the aeronautics fund came from the "users" of aviation via aviation fuel taxes and aircraft registration fees. AOPA and other organizations have been trying to get the transfer reversed or repayment legislation passed in the next legislative session.

Previously, other legislation was passed providing for a committee to study the funding needs of aviation in Minnesota and the appropriate sources for that funding. The committee is chaired by a legislator and the membership includes representatives from the various aviation interests in Minnesota, including AOPA. The committee is in the process of selecting a consultant to do a comparison of funding sources used by other states. It appears to me that the current system was working until the legislature started raiding the aeronautics fund to use the monies for other than their intended purposes.

The **Michigan** state legislature and governor have created a Transportation Funding Task Force (TF2) to determine the future needs and funding sources for all modes of transportation. Aviation has one representative on the 9-member task force. There is a 19-member Citizens Advisory Committee, which has an aviation subcommittee.

AOPA's Vice President of Regional Affairs, Greg Pecoraro, recently made a presentation to the task force regarding the needs of general aviation. AOPA will be watching the TF2 closely and will provide public input on any recommendations made by the task force to the governor concerning any changes in the sources of funding for state aviation services and capital programs.

I attended two state aviation conferences held in my region last spring in Illinois and Wisconsin. Attendees at these conferences included airport managers, FAA regional personnel, state aviation officials, and airport consultants. Attendees at both conferences had about the same concerns - federal and state funding of airport improvements, the perceived reduction in general aviation activity at the smaller airports, fuel prices, lack of community support for their airports, noise complaints, and possible future mandated security procedures. It is interesting to note how closely the concerns of these providers of aviation services match the concerns of the pilot-users of those services. It demonstrates the need for all of us in aviation to work together on these issues.

The AOPA 12 regional representatives made their annual sojourn to AOPA headquarters in Frederick, MD on June 4th. We spent three days with headquarters' staff being briefed and discussing issues important to our members, comparing solutions used successfully in various regions, and trying to predict and plan for future issues. We stayed for the AOPA Fly-in on Saturday, which gave us the opportunity to meet with some of the AOPA **Airport Support Network (ASN)** volunteers and members to discuss issues on their minds. If you do not have an ASN volunteer at your airport, I hope you will consider volunteering or nominating a volunteer. ASNVs are the AOPA eyes and ears in the field, helping to identify local issues earlier, and providing local presence to help solve them.

For more information on these and other aviation issues, please go to the AOPA web site: www.aopa.org.

AOPA Expo To Land In San Jose, Calif.

Who: Aircraft Owners and Pilots Association (AOPA).

What: AOPA Expo.

When: Thursday, November 6, 2008 – Saturday, November 8, 2008.

Where: San Jose McEnery Convention Center and Mineta San Jose International Airport.

The Aircraft Owners and Pilots Association (AOPA) is holding its annual Expo in San Jose, Calif, November 6-8, 2008. AOPA Expo is the premier trade show and convention for general aviation.

AOPA Expo is the perfect opportunity for pilots and aviation enthusiasts to visit with AOPA staff, see the latest general aviation aircraft – including 60 on display, browse aisles of products from 550 exhibitors, hear directly from industry leaders, and speak with fellow pilots and aircraft owners.

For more information about AOPA Expo and to register, reserve hotel rooms, and view travel information, visit www.aopa.org/expo/.



FROM PHIL'S DESK

Security issues involving various modes of transportation have been a mainstay of the news media in recent years. General aviation is no exception. AOPA continues to work with federal, state, and local government agencies to advocate for general aviation pilots. We educate decision makers about the unique attributes of our industry and the necessity to avoid a one-size-fits-all approach to aviation security.

GENERAL AVIATION SECURITY

By Andy Cebula, AOPA Executive Vice President of Government Affairs

Since the terrorist attacks of September 11, 2001, general aviation has been among the transportation industries being scrutinized for increased security. But much of the scrutiny we experience is a result of misunderstanding and misperception. We are working to change that by increasing the Association's visibility and presence within key federal security agencies that impact GA.

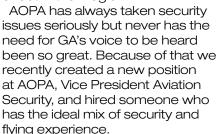
AOPA is the voice of general aviation as we work with Department of Homeland Security (DHS) and its many components including the Transportation Security Administration (TSA), Customs and Border Protection (CBP), U.S. Secret Service and others. We partner to research and develop aviation security strategies that best meet the needs of the membership. We also offer suggestions to ensure any security measures put in place are done so with the least amount of burden on pilots.

We are currently focused on new regulations and their impact on general aviation. TSA is in the process of developing a threat and vulnerability assessment program for GA airports with the goal of developing a grant program for security improvements at GA fields and the CBP proposed a rule

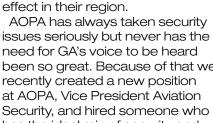
requiring advance notice of any aircraft planning to fly internationally. AOPA's priority is to make sure these and all security regulations are based on common sense and that general aviation pilots are accommodated so they can abide by the regulations.

There are several AOPA resources to help you understand the security issues we're facing and also to help you prepare for each flight. The home page of AOPA Online, www.aopa.org, features a section dedicated to providing the latest notams and TFRs. The Know Before You Go! online course will help update you with what you need to know about navigating today's airspace. In addition, all AOPA members who provide their

e-mail address to the Association will receive e-mail alerts whenever a TFR goes into



Craig Spence will work with all levels of government to advocate for general aviation and commonsense security measures. You can read more about Craig in the sidebar below.



CRAIG SPENCE. **AOPA VICE PRESIDENT AVIATION SECURITY**

AOPA Vice President of Aviation Security, Craig Spence, brings security savvy as well as extensive flying experience to his new position. A former Department of Homeland Security official, Spence has spent nearly 20 years working in airport and aviation security. He is also a commercial pilot with instrument and multi-engine ratings and a colonel in the United States Air Force Reserve with more than 2,500 flight hours.

Spence's goal is to work with government agencies to find security answers that pose the lease amount of burden as possible on general aviation pilots, while still addressing the nation's security needs.



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Keeping Common Sense Securely In Place

by AOPA President Phil Boyer

ne of the biggest challenges during my tenure as president of AOPA has been correcting misperceptions about general aviation. You may be surprised to know that this problem is not just among the general public, but among government agencies as well. This became extremely obvious after 9/11 when general aviation was under scrutiny for increased security. Still today we are working to ensure common sense is the foundation of any security-related regulations that are enacted and impact general aviation.

During the past several years I've spoken about general aviation security to local and national media, given Congressional testimony, and been in contact with countless members who are concerned about the issue. In addition, government specialists at AOPA work closely with the Department of Homeland Security (DHS), Transportation Security Administration (TSA), Customs and Border Protection (CBP), U.S. Secret Service, and numerous other agencies on all levels of government to advocate for general aviation pilots.

AOPA's voice is being heard as we make suggestions on regulations involving security - at general aviation airports as well as in the national airspace system. We understand the need for protecting our nation, but want to make sure it is done reasonably. One example is the AOPA "Airport Watch" program, created in cooperation with TSA. This collaborative program encourages all pilots to look out for suspicious behavior at their airports and report it to TSA (866-GA-SECURE). By serving as the neighborhood watch of their local airports, general aviation pilots are voluntarily taking a proactive approach to security.

But there are new challenges ahead. For example, officials are concerned that small boats and small aircraft may be used to smuggle weapons into the U.S. As a result, we can expect that flight operations – especially those near our country's border – will undergo additional scrutiny.

Because aviation security is a top priority issue for us, AOPA recently created a brand new position in our Government Affairs department. Craig Spence is our new Vice President, Aviation Security and will serve on the front lines as he leads AOPA's advocacy efforts dealing with general aviation security. He will lead our efforts with federal agencies to ensure that security regulations put in place to protect our country are based on common sense and are not overly burdensome to general aviation pilots.

Become a member of the world's largest aviation association, which is working on behalf of general aviation pilots. Join AOPA today (www.aopa.org/join).

Phil Boyer To Retire... Craig L. Fuller Selected To Be Next AOPA President

FREDERICK, MD.

- William C. Trimble
III, Chairman of the
Aircraft Owners &
Pilots Association
(AOPA) Board of
Trustees, has announced that AOPA
President Phil Boyer
will retire at the end



Craig L. Fuller

of 2008. Experienced Washington public affairs executive, Craig L. Fuller, has been selected by the AOPA Board of Trustees as the next president of the 414,000-member pilots association, the world's largest aviation organization that represents almost 70 percent of U.S. pilots.

"Phil informed the board some four years ago he would retire in three

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years. We convinced him to continue his extraordinary leadership of AOPA for another year," said Trimble. "Now, we must move on, but AOPA and the entire general aviation community are in a better place for his inspired 18 years at the controls.

"Starting last year to find AOPA's next leader, a Board of Trustees search committee hired national search firm Heidrick & Struggles to help identify final candidates from among 597,000 U.S. pilots. After hundreds of interviews and painstaking review of 100 potential candidates, it was clear that Craig Fuller, a recognized leader in business, public affairs, and association management, would be ideally suited to carry on Phil's tremendous legacy.

"Craig is a committed 40-year pilot, aircraft owner, and AOPA member," added Trimble. "He is as comfortable with fellow pilots and 'hangar talk' as he is facing a congressional committee."

Fuller left his native California in 1981 to be the assistant to the president for cabinet affairs in the Reagan White House. In 1985, he became chief of staff for Vice President George H.W. Bush at his request, traveling with the vice president to every state and 60 nations overseas.

Later, after working with international public affairs organizations in Washington and Philip Morris Companies Inc. in New York, he became president and CEO of the National Association of Chain Drug Stores (NACDS) linking retailers, manufacturers, and suppliers in that industry. He will be leaving his current post as executive vice president at global public affairs and strategic communications company APCO Worldwide in Washington to become AOPA president.

Fuller learned to fly at Buchanan Field in Concord, California, while still in high school and flew with the UCLA flying club at Van Nuys while earning a B.A. in political science. He has a master's degree in urban studies from Occidental College in Los Angeles, where business travel in his

early public affairs career fostered the purchase of a Cessna 172RG Cutlass based at Santa Monica. He now logs 200-plus hours a year in his Beechcraft Bonanza A36.

Fuller is a director of the U.S. Chamber of Commerce, active in The Aspen Institute, and a former trustee of The John F. Kennedy Center for the Performing Arts and the George (H.W.) Bush Presidential Library Foundation. He and wife Karen reside in northern Virginia just outside Washington, D.C.

"Being selected by the trustees as only the fourth president of AOPA in 70 years is a tremendous honor and a serious responsibility," said Fuller. "I am fully dedicated to ensuring that the best days of general aviation remain ahead of us. And AOPA is ready with a strong organization bolstered over two challenging decades by an individual we all admire."

AOPA Chairman Bill Trimble added, "Phil Boyer transformed the Aircraft Owners and Pilots Association into a forward-thinking and techsavvy leader for vastly changed times in general aviation. The GA community will remember Phil's remarkable contributions that prepared us for the twenty-first century."

Enhancing AOPA management skills and member service, Boyer

engineered a 40 percent growth in membership despite the declining U.S. pilot population. His many new ventures funded novel GA advocacy and member benefits, all while holding AOPA annual dues at \$39.

"Phil orchestrated regulatory and legislative backing for civil aviation use of GPS satellite navigation, led consumer support for aviation product liability reform that was decisive in Congress, and averted onerous user fees during three FAA re-authorizations," said Trimble.

"Moreover, he facilitated general aviation's return to the skies following a long post-9/11 grounding by talking sense – and common-sense cooperative programs – with lawmakers and security officials."

"I have often mentioned that this day would come, on schedule, as planned with my family and the AOPA Board of Trustees," said Boyer. "Now, it's official. I am delighted Craig will captain AOPA on the 'next leg' of this remarkable journey to preserve and advance general aviation."

Fuller is to take office on January 1, 2009, following formal election at the trustees' September Annual Meeting of Members. He and Boyer will be working together on the transition for the remainder of this year.











(TOP LEFT L/R) St. Cloud State University Chief Flight Instructor Matt Borgardt, and student Craig Cance, with one of many training aircraft at Wright Aero, Inc., St. Cloud Regional Airport, St. Cloud, Minnesota.
(TOP RIGHT L/R) St. Cloud State University students, Malisa Yang, and Paul Borrell. Yang is president of the Women In Aviation Student Chapter, and

(10P HIGHT L/H) St. Cloud State University students, Malisa Yang, and Paul Borrell. Yang is president of the Women In Aviation Student Chapter, and Borrell is president of the SCSU Aero Club.

(MAIN PHOTO) St. Cloud State University aviation students with a Cessna 152 on display at the main campus.

St. Cloud State, More Than A Spectator Sport... It's A Career Decision

by Dave Weiman

s most of us who live in the Midwest know, college "hockey" reigns supreme among spectator sports and a winning team is a good recruiting tool. Still, it is the academics of a school which weigh more heavily than

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Don Shipp

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sports in the minds of most students. Not only does St. Cloud State University (SCSU) have a winning hockey team, but it also has a winning aviation program!

Students interested in a career in aviation should seriously consider curriculum, faculty, location, and cost when searching for a university program. The best education does not necessarily lie in the largest of campuses and big-name schools. The best education lies in the student's willingness to study hard with guidance from a dedicated staff of professors.

SCSU is located an hour and 30 minutes northwest of the Twin Cities in St. Cloud, Minn. Its aviation program is large enough to provide a well-rounded aviation education, yet small enough that the professors actually do the teaching themselves,



Dr. Steven L. Anderson

versus teaching assistants, and students are actually mentored throughout their academic experience.

Heading up the "Aviation Program" at SCSU is Dr. Steven Anderson, the Department Chairperson. Dr. Anderson has served in various faculty positions at SCSU since 1989. He received his Bachelor of Science Degree in Engineering Technology/ Aviation from SCSU; his Master in Business Administration Degree, also from SCSU; and his Ph.D. in Education - Training and Development from the University of Minnesota. Dr. Anderson serves as a faculty advisor to several SCSU student organizations, including the SCSU Aero Club, SCSU Flight Team, and SCSU Aviation Ambassadors. Additionally, he serves as treasurer of the Minnesota Association of Professional Flight Instructors, serves on the Board of Trustees for Aviation Accreditation Board International, and on the Executive Board for the University Aviation Association. He is also an FAA Safety Team Representative and an FAA Designated Pilot Examiner.



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Other aviation program faculty members include Robert Aceves, Ed.D., an Associate Professor of Aviation, who coordinates the Bachelor of Applied Science (BAS) in Aviation Maintenance Management Program. Professor Aceves specializes in faculty-student research, aviation education online, China aviation, and Chicano/as in aviation.

Michael D. Ferguson, M.S., is an Assistant Professor of Aviation, faculty advisor to the student chapter of the American Association of Airport Executives (AAAE), co-advisor of the Aviation Ambassadors, and editor of the SCSU Flightlines aviation newsletter. Professor Ferguson specializes in aviation safety, the airline industry, and ethics in aviation.

Tara Harl, Ed.D., is an Associate Professor of Aviation, and coordinates the Business Aviation Program and Internship Office. She is also the department liaison to the National and Minnesota Business Aviation Associations, and serves on various industry advisory boards. Additionally, Professor Harl is the co-faculty advisor to the SCSU Women In Aviation Chapter. Her specialty is in business aviation and researching blacks in aviation.

Jeffrey Johnson, Ph.D., is an Associate Professor of Aviation, department alumni liaison, and co-faculty advisor to the SCSU Women In Aviation Student Chapter. Professor Johnson serves on the University Aviation Association Board of Trustees and specializes in the airlines, aviation education, and aviation security.

Angie Olson, M.S., is an Assistant Professor of Aviation and a faculty advisor to Alpha Eta Rho, a national co-educational aviation fraternity. Her specialty is cosmic radiation, and gender issues in the cockpit.

Sandra Osterholt is the Aviation Department Office Manager and a 30year veteran of SCSU. Mike Terhune is the Information Technology Specialist.

The faculty and staff in the SCSU Aviation Department are talented and educated people, with most professors holding the full array of pilot certificates and ratings, including Airline Transport Pilot Certificates, and Certified Flight Instructor-Instrument and Multi-Engine Certificates. Some are Minnesota born and received their educations right at SCSU. Others attended different aviation campuses. Their combined experiences help to enrich the SCSU program which began in the 1930s when SCSU participated in the federal Civilian Pilot Training program. Today, there are approximately 200 students enrolled in SCSU's aviation program.

In 1949, SCSU Aero Club, Inc. was established on campus by a small group of students, faculty, and staff. As student interest grew, SCSU began offering aviation classes on campus, and in 1978, added an aviation emphasis in the technology major that was so well received that more classes were added. In 1987, the Bachelor of Science in Aviation Degree Program was developed and approved. Departmental status was granted in 1996. Later, the Bachelor of Applied Science (BAS) Degree in Aviation Maintenance Management was added.

The Bachelor of Science in Aviation is accredited through the Aviation Accreditation Board International and is the only nationally accredited aviation program in Minnesota. This major allows a choice of study in one of three areas to prepare students for professional careers in the aviation industry: Professional Flight, Management, or Operations. Aviation minors are also offered for optional study in each subject area, when combined with a university major.

The BAS in Aviation Maintenance Management is designed to provide a cooperative articulated bachelor's degree for students completing an aviation maintenance or avionics certificate/diploma program at a technical college or the military equivalent. The program includes courses in aviation, management, and completion of the university's general education requirements. This program can be completed on campus or online.

SCSU believes in the importance

of real-life experiences, both to heighten job prospects after graduation, and to help students make career decisions. Aviation internships give students the opportunity to gain this practical experience.

Leaders of the Minnesota Aviation Trades Association, Minnesota Council of Airports, Minnesota DOT Office of Aeronautics, Metropolitan Airports Commission, airports, flight centers, corporate flight departments, and the airlines work with SCSU aviation faculty to create internships. Companies and governmental agencies that have established internships with the department have developed job duties that provide interns with significant learning experiences.

Unlike some aviation programs which ignore any previous aviation experience including previous flight training and pilot certificates, SCSU awards "credit by exam" and/or for "experience!"

Credit for prior aviation or other program-related experience is available through the Credit-by-Examination procedure. A written and/or flight test is given by the department to determine that the student meets the requirements and standards of the course, and to ensure that once students graduate, they are truly prepared for their chosen careers.

Flight Training

The flight department at Wright Aero, Inc., located at St. Cloud Regional Airport, is contracted with the SCSU Aviation Department to provide flight training at reasonable rates. Students receive personalized flight instruction by experienced instructors.

The flight training program follows a detailed St. Cloud State University-created syllabus and contains 30 hours of Line Oriented Flight Training (LOFT) in the school's turboprop flight simulator. Unlike classroom coursework, the flight program receives no state financial backing, but is still very cost-effective.

CONTINUED ON PAGE 48

MAKING MOVIES





(LEFT) Ron Twellman of EAA appeared as a Sioux Falls, S.D. radio operator in the motion picture, "Public Enemies." (TOP) Ford Tri-Motor as seen in the 1930s.

EAA's Ford Tri-Motor Stars In Motion Picture

by Jim LaMalfa

irected by University of Wisconsin alumni, Michael Mann, Public Enemies, a Universal film company production, was recently filmed at sites in Wisconsin and Chicago to obtain as much authenticity as possible. The film, starring Johnny Depp and Christian Bale with a 1930s era script, involved location shooting at Little Bohemia Lodge, Manitowish Waters, Vilas County, Wisconsin, where the Chicago gangster, John Dillinger and his gang were involved in a shootout in 1934 with the FBI. Location filming was also done at Columbus. Beaver Dam, Oshkosh and Milwaukee.

The Experimental Aircraft Association was called upon to assist the production because it owns an original Ford Tri-Motor airliner. The aircraft was extensively damaged at the Burlington, Wisconsin Airport by high winds in the 1970s and subsequently

totally restored by EAA. The aircraft was repainted three times by EAA personnel to depict three different 1930s airlines, one being American Airways, predecessor to American Airlines. EAA's Pioneer Airport and Wittman Field were also used to simulate the scene where FBI agents transferred Dillinger to Chicago from Arizona.

Wittman Field's Basler Flight
Service FBO was temporarily turned
into Chicago Municipal Airport,
the predecessor for today's Chicago
Midway Airport. Air to air filming
was done from a specially equipped
Eurocopter AStar helicopter flown by
EAA member, air show performer (i.e.
Double Take S2B Pitts), and Hollywood aerial photo coordinator, Craig
Hosking. The flight scene filmed over
Lake Winnebago used CGI (computer
digital imaging) to simulate the Chicago skyline of Lake Michigan.

Among the EAA employees who assisted with the Ford Tri-Motor were John Hopkins, Tom Davis, Gerard Putzer, Mark Leisses, John Faeh and Ron Twellman, curator of collections. Twellman may appear in the film as a Souix Falls radio operator, as well as in vintage aircraft from the EAA Pioneer Airport collection. A Fairchild FC-2, Pitcairn PA-7S Sport Mailwing, Travel Air e-4000 and Waco RNF, authentic for the era, may appear in the final movie. The film is slated for release in August of 2009.

The influx of movie companies to Wisconsin is a direct result of a bill written by Senator Dave Hanson, signed into law by Governor Jim Doyle, with cooperation by Lieutenant Governor Barbara Lawton to encourage filmmakers to take advantage of tax breaks and incentives and authentic locations in Wisconsin for period movies.



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Aircraft Maintenance Business Returns To Amery



Local pilots are glad to have an aircraft maintenance facility back at Amery Municipal Airport, Amery, Wis. (L/R) Pete Waggoner, Darrel Gibson of Amery Aviation, Roger Olson and Jim Dierke.

AMERY, WIS. – After several years of little to no aircraft maintenance service at Amery Municipal Airport, a new aircraft maintenance business was established in 2005 by a family known well in the Wisconsin aviation community, and area aircraft owners could not be more pleased.

Darrel R. Gibson established Amery Aviation after being furloughed by Northwest Airlines, where he worked since 1993 as an aircraft technician. Gibson is a graduate of Helena, Montana Vocational Technical College, where he earned his Airframe and Powerplant Certificate.

Gibson's father, Darrel W. Gibson, and his wife, Cleo, successfully operated Gibson Aviation in Eau Claire from 1961 to 1989 when he sold the operation. Gibson worked for the new owners for a short time before being hired by

Northwest. Gibson now has more than 20 years of aircraft maintenance experience, and has aircraft Inspection Authorization.

Among the aircraft owners glad to have a Gibson back in general aviation is local Amery True-Value Hardware owner and pilot, Paul Isakson. Isakson is restoring a 1932 Ryan STA with assistance from Gibson. Gibson is also restoring a Stinson 108-3 for Randy Hammons of Clear Lake, Wis. Regardless of the make, model and year of aircraft, no project is too large or small for Darrel Gibson and Amery Aviation, and that includes a Boeing 747!

For additional information, contact Darrel Gibson at 715-268-8981 (office), or 715-220-6549 (cell).

Osceola (OEO) Gets New Operator!

by Dave Giese

will never forget the beautiful fall day 10 years ago that changed my life. As Dick Johnson and I wrenched on his pristinely restored 1960 Champ at the airport in Osceola, Wisconsin (OEO), I



Dick and Carolyn Johnson Of Osceola Aero, Osceola, Wisconsin

started making conversation by mentioning that the current owner of the FBO thought that I should buy it. I was laughing when I told Dick about this conversation, but little did I know that his reply would be engrained in my memory forever; he simply said; "You should."

At the ripe old age of 18, I was surprised that someone thought I could give flight instruction, let alone run a business, but before I knew it (two months later), I was giving flight instruction non-stop. I had begun what has been the best 10 years of my life.

In November of 2007, I reminded Dick that he got me into the FBO business and it would only be appropriate for him to "get me out" because I am going to be a dad soon and need to focus my time on my family.

Over the years Osceola Aero, www.OsceolaAero.com, has grown considerably; most notably were major airport construction projects each of the last two summers. Two years ago we lengthened our runway from 3,800 feet to 5,005 feet and last year our ramp was completely overhauled and doubled in size. The community has seen a

CONTINUED ON PAGE 35

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Minnesota Aviation Industry News

MINNESOTA AVIATION TRADES ASSOCIATION

NATA's Jim Coyne Keynote Speaker At MATA Conference

SHAKOPEE, MINN. - The Minnesota Aviation Trades Association (MATA) will host a one-day conference especially for Minnesota aviation business owners, managers and their employees on Friday, September 19 at the Canterbury Inn in Shakopee, Minnesota. A reception will be held the evening of Thursday, September 18.

Speakers will include National Air Transportation Association (NATA) President Jim Coyne as the keynote luncheon speaker. Coyne will get attendees up to date on national issues affecting their businesses, including user fees, fuel prices and fuel availability.



Jim Covne

James Coyne was born in Farmville, Virginia, and raised in suburban Philadelphia. He holds a B.S. degree from Yale and an M.B.A. from Harvard. During the 1970s Coyne was a faculty member at the Wharton School (University of Pa.) and the CEO of a family business in Philadelphia (Coyne Chemical Company). He defeated an entrenched incumbent in Congress in 1980, and was then chosen to serve in the White House as Special Assistant to President Ronald Reagan and Director of the Office of Private Sector Initiatives.

The National Air Transportation Association, representing nearly 2,000

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General Aviation Business Event of the Year Minnesota Aviation Trades Association Conference



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Jim Coyne

National Air Transportation Association **Gary Workman**

MnDOT Office of Aeronautics

Greg Reigel

Aero Legal Services, Reigel & Associates

leff Hamiel

Metropolitan Airports Commission

Ed Leineweber

Midwest Flyer Magazine

Jack Peter

Hondalet Midwest & Des Moines Flying Service

Al Malmberg

World of Aviation, WCCO-Radio

FRIDAY, SEPTEMBER 19, 2008 Canterbury Inn, Shakopee, Minnesota

Reception:

Thursday, September 18 5:00 PM.

Conference & Luncheon:

Friday, September 19 8:00 AM to 3:00 PM

Topics:

- **★** Very Light Jets
- **★** Light Sport Aircraft
- **★** State Airport Funding
- **★** MAC Reliever System
- **★** Law For Aviation Professionals
- **★** Evolving Role of FBO

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To Register, Contact Mike Higgins At 651-450-6200 Or Visit www.mnataonline.net

MATA... Taking Care of Business For Minnesota Aviation!



large and small aviation businesses, selected James K. Coyne as its president in April 1994. For the past 25 years, he has been an active pilot with instrument and multi-engine ratings. As NATA president, Coyne has visited over 300 FBOs and aviation service businesses across the country.

Coyne lives in McLean, Virginia, with his wife, Holly, an instrumentrated pilot. They have three children: Sandy (also a pilot), Kate, and Michael.

Gary Workman, Director of the MNDOT Office of Aeronautics, will brief attendees on the Minnesota aeronautics budget, the \$15 million the Minnesota Legislature transferred from the State Aviation Trust Fund to the General Fund and how this will affect airport projects, and other issues affecting aviation businesses statewide.

Greg Reigel, Attorney with Reigel & Associates, Aero Legal Services, will discuss how operators should respond to accidents to protect themselves legally and FAA-wise.



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or contact Mike Higgins at mike@exclusiveaviation.com

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Jack Peter, Regional Sales Representative at HondaJet Midwest and Des Moines Flying Service, will describe the progress being made with the HondaJet and the PiperJet Very Light

Ed Leineweber, Light Sport Aircraft/Sport Pilot columnist for Midwest Flyer Magazine, will explain how operators can take advantage of the LSA/SP movement.

Jeff Hamiel, Executive Director of the Metropolitan Airports Commission, will give attendees an update on reliever airport projects and services in the Twin Cities, as well as how the Northwest/Delta Airlines merger will affect the future of MSP and the MAC system.

Al Malmberg, host of the "World of Aviation" on WCCO Radio, will share his perspective as a private pilot and customer as to how aviation businesses can better market their products and services.

Conference Schedule: **Thursday, September 18 - 5:00** to 7:00 PM - RECEPTION -Devon Room

Friday, September 19, 2008

7:30 to 8:25 AM - BREAKFAST & **REGISTRATION - Devon Room** 8:25 to 8:30 AM – Welcome & Open ing Remarks, Kevin Doering, MATA – Devon Room 8:30 to 9:00 AM – Gary Workman, MNDOT Aeronautics

9:00 to 9:30 AM – Greg Reigel, Aero Legal Services/Reigel

& Associates 9:30 to 10:00 AM - Jack Peter, Des Moines Flying Service (Very Light Jets)

10:00 to 10:15 AM -**COFFEE BREAK**

10:15 to 11:15 AM - Ed Leineweber. MFM,

Sport Pilot/Light Sport Aircraft 11:15 to 11:45 AM – Jeff Hamiel, Metropolitan Airports Commission

11:45 AM 1:45 PM – LUNCHEON, Jim Coyne, Pres, NATA – Essex Room

1:45 to 2:00 PM - BREAK

2:00 to 3:00 PM – Al Malmberg, World of Aviation, WCCO Radio -Devon Room

3:00 to 3:30 PM – Annual Meeting – Devon Room

Ground transportation: For those flying to the Twin Cities, there will be courtesy transportation from Thunderbird Aviation, located at Flying Cloud Airport in Eden Prairie to the Canterbury Inn. Call ahead for both shuttle service or car rental by contacting Chris Cape at (952) 941-1212 or via email at ccape@thunderbirdaviation. com, or Alex Haak at 612-381-6653.

Directions to Canterbury Inn from Flying Cloud Airport: Hwy. 169 south to Canterbury Rd. South exit, turn right off exit ramp and go to the first stoplight, turn left onto 12th Avenue East, then an immediate left onto Disc Drive, and an immediate left onto Secretarial Drive. See www.canterburyinnshakopee.com.

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- ★ Minn. Aviation Trades Ass'n Inver Grove Heights, Minn.

Hotel reservations can be made directly with the Canterbury Inn by calling 952-445-3644. All rates are discounted by \$20.00 when you tell the hotel that you are attending the MATA Conference: \$79.00 King or Twin, or \$99.00 for a Suite (reg. \$99 and 119.00 respectively).

To register for the conference, refer to the MATA website at www.mnataonline.net, or contact Mike Higgins via email at mhiggins@exclusiveaviation.com, or call 651-450-6200.

Mark Your Datebook for September 19, 2008



(L/R) Ken Hillstrom; Robert Turner, FAA FSDO Chief; Sherm Booen; Jim Hanson; and Gary Pendleton of the FAA Safety Team.

Sherm Booen Receives FAA Wright Brothers Master Pilot Award

by Jim Hansen

MINNEAPOLIS, MINN. – Famed Minnesota aviator Sherman (Sherm) Booen received the FAA Wright Brothers Master Pilot Award at the Minnesota Business Aviation Association luncheon, May 14. The award recognizes 50 consecutive years of accident and violation-free flying. About 200 people attended. The award was presented by FAA Safety Team (FAAST) leader Gary Pendleton from the FAA Minneapolis Flight Safety District Office (FSDO), and FSDO Director Robert Turner.

"The Wright Brothers Master Pilot Award recognizes the efforts of pilots who have followed and continue to follow the precaution and awareness of safe operations," stated Pendleton. "Most of all, FAA recognizes pilots who have contributed and maintained safe flight operations for 50 or more consecutive years of piloting aircraft."

"Throughout their 50 years as pilots, they have shared their experience and knowledge with many airmen. Their dedicated service has contributed to the United States enjoying the safest aviation system in the world."

In his acknowledgement speech, Booen recounted the highlights of his long aviation career, from his first solo in an Aeronca C-2 (a predecessor to the later Champ aircraft) from a large open field, to his long-running radio and television programs including the "World of Aviation" on WC-CO-TV in Minneapolis, the start of the Minnesota Flyer, and his work with both the Minnesota Aviation Trades Association and the Minnesota Business Aircraft Association. The modest Booen skipped over his wartime service as an autopilot technician and instructor on heavy bombers during World War II, his service during the Korean War, and his service as a fighter pilot in the Marine Reserves. As a former radio and television personality, Booen's speech was delivered flawlessly, in his deep, baritone voice that so many of us have heard on radio, television, or over the PA system at airshows.

This article would not be complete without a short "Sherm Story." The MBAA luncheon was hosted by Beechcraft Hawker, and they flew in their new Hawker 4000 super-mid-size jet to Minneapolis for the event. The aircraft is so new that it still wore an experimental sticker. Sherm wanted to look over the plane, so the 94-year-old pilot walked up the steps and climbed into the cockpit. The salesman was explaining the glass instrument panel, when Sherm interrupted him and asked: "Is that the new Epic system?" Technology hasn't passed by Sherm Booen!

It was "Sherm's Day," and the crowd gave him a deserved standing ovation. *Thanks, Sherm, for all you have done for Minnesota Aviation!*

For additional information on the Wright Brothers Master Pilot Award, contact Gary Pendleton with the Minneapolis Flight Standards District Office at 612-713-4244. A current medical is not a requirement to receive the award. To view the entire list of requirements, and to obtain an application form, go to http://www.faa.gov/safety/awards/wright_bros/

OSCEOLA FROM PAGE 32

significant increase in air traffic, particularly jet traffic. Additionally, hangar spaces are readily available for everything from a Cessna 150 to a mid-size corporate jet.

The Village of Osceola has a thriving business park (Northwire, Core Products, Principal Fixtures, Polaris ATVs, etc.). The Osceola Airport (KOEO) plays a major role in attracting new business because it provides a convenient gateway for them and their customers. Both Osceola Aero and the airport commission look forward to future opportunities with new businesses to locate within the Village

of Osceola and base their aircraft in Osceola.

After many years of being involved at OEO including as a test pilot for Champion, flying club operator, corporate jet pilot, and airport commissioner, Dick has joined the "exclusive" club of FBO/flight school owner and operator. On January 2, 2008, Dick and Carolyn Johnson bought Osceola Aero, and it didn't take long for their personal touch to be noticed. The building interior has a look like never before. I walked in a month ago and thought I might never leave! Another major improvement on the operational front

CONTINUED ON PAGE 43

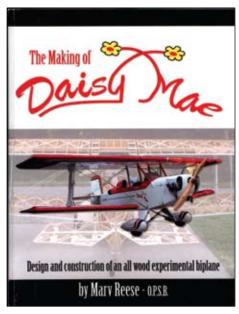
LIGHT SPORT AIRCRAFT











Keeping It Cheap(er): I Thought Sport Pilot-Eligible Aircraft Were Supposed To Be Affordable!



Rainbow Aircraft Cheetah XLS

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by Ed Leineweber

heard it many of times in the run-up to the adoption of the Sport Pilot-Light Sport Aircraft rules in 2004: recreational aviation would become more affordable to the average



Ed Leineweber

able to the average person, with less expensive flight training and new airplanes costing about the same as a new Sport Utility Vehicle (SUV). Well, the jury is still out on the average cost of a Sport Pilot Certificate, with promising early indications. But the verdict on the price of new, fully manufactured, flyaway Special Light Sport Aircraft (S-LSA) is in: high, and rising fast! Does this mean the Sport Pilot movement is

doomed to fail?

Not at all. Affordable options are readily available for the Sport Pilot on a budget. Let's explore three: a new Experimental Amateur-built quick-build kit; a "used" homebuilt; and a ground-up, clean-sheet, builder-designed EA-B sweetheart called Daisy Mae. (We will leave aside the other

CONTINUED ON PAGE 43



Steve and Jon Syvertson of Midwest Sport Aviation, LLC and their first Cheetah XLS from Rainbow Aircraft of Springs, South Africa.

PEOPLE PROFILE



Maj. Jodi Maroney (center) with her parents, Wes and Linda Miller (left), and friends, Krys and Jeff Baum of Wisconsin Aviation, Inc., Madison, Wis.

MADISON, WIS. – While en route ferrying a Marine Corps CH-53E Super Stallion helicopter from San Diego, Calif. to New River, North Carolina, Major Jodi (Miller)





Maroney opted to land at Dane County Regional Airport on June 25 to refuel and do a little public relations for the services at the flight school that gave her her start in aviation – Wisconsin Aviation, Inc.

Maroney began flight training in 1991 at age 16 while in high school in Oconomowoc, Wis. at Wisconsin Aviation's Watertown, Wis. location. Maroney was a junior at the University of Wisconsin in Madison, and working at Wisconsin Aviation, when she decided to join the Marine Corps in 1997 and become a military pilot. After graduating from the University of Wisconsin, she received her wings in 1999 as a CH-53E Super Stallion pilot, and was first deployed in 2002 with the 13th Marine Expeditionary Unit. In 2003, Maj. Maroney was deployed in Operation Iraqi Freedom and flew the first CH-53E into Iraq when the war started. She was again deployed in 2004 in Operation Enduring Freedom in Afghanistan, and has been with the



Wittman Regional Airport Oshkosh, Wisconsin Vision blurred from scratches & crazing? **NEWVIEW** will restore or replace your windshield and/or cabin windows.

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E-Mail: sales@newviewtech.com Web Site: www.newviewtech.com Marine Reserves since 2006. When not flying with the Marines, she is a Federal Marshall with the Department of Home Land Security, Division of Customs Boarder Patrol in San Diego,

The CH-53 Super Stallion was built by Sikorsky Aircraft. It is powered by three General Electric T64-GE-416 turboshaft engines, which produce 4,380 shaft horsepower each. The aircraft is nearly 100 feet long, 28 feet high, and has a rotor diameter of 79 feet. It can cruise at 150 kts (172.5 mph), and has a range of 621 miles without refueling, and an indefinite range with aerial refueling. The maximum internal load is 69,750 lbs., and the external load is 73,500 lbs. For armament, the CH-53 has two XM-218.50 caliber machine guns. Minimum crew is three people. For the flight into Madison, there were seven crewmembers. The CH-53 costs \$26 million.

Maj. Maroney says that her father, Wes Miller, who is Vice President of Administration at Wisconsin Aviation, inspired her to take flying lessons.

"We (our family) would fly everywhere with dad," said Maroney. About 25 friends and relatives joined the media to welcome Maj. Maroney and her crew to Madison.

Jim Schumacher, who was a professor in Naval Science at Marquette University in Milwaukee before retiring as a Colonel in the Marine Corps, was Maj. Maroney's flight instructor at Wisconsin Aviation. At the request of Maroney, he had the honor of commissioning her a Second Lieutenant.

Maj. Maroney got married to Maj. Jon Maroney of Waldorf, Md. in 2000. Mr. Maroney graduated from the Citadel in Charleston, South Carolina, served as an intelligence officer in 1997, and was part of the Carrier Battle Group on the USS Truman aircraft carrier in 2000, during which they supported Operation Southern Watch and Operation Iraqi Freedom in 2003.

The flight from San Diego to New River was Maj. Maroney's last flight with the HMH 769 Marine Reserve Unit, which has ceased operations in San Diego.

AWARDS & RECOGNITION

He Flew For The Adventure of Flight...

William J Bancroft May 4th 1932 - June 2nd 2008

FAA Recognizes Bill Bancroft & Mike Kaufman

MADISON, WIS. - Bill Bancroft of Madison, Wis., and Mike Kaufman of Richland Center, Wis., were recognized by the FAA Great Lakes Regional Office, May 29, at ceremonies held at Wisconsin Aviation at Dane County Regional Airport, Madison, Wis. Bancroft was awarded the "Wright Brothers Award" for having flown more than 50 years of accidentfree flying, and Kaufman was honored as the Flight Instructor of the Year for the Great Lakes Region.

Bill Bancroft instructed and flew commercially in the Madison area, and ferried single-engine aircraft



(L/R) Bill Bancroft and his wife. Gen. and Bancroft's friend and fellow aviator, Mike

throughout the world, including to Europe, Hawaii and Australia. His friend, Mike Kaufman, followed in Bancroft's footsteps flying on trans-oceanic flights and made flight instruction his full-time occupation.

On June 2, just days after receiving the award, Bancroft passed away of cancer. He was 76 years old.

Where golfers and fisherman have their stories, Bill Bancroft had his adventures.

Bancroft learned to fly as a young man and received his private pilots certificate in 1952. He attended the University of Wisconsin-Madison where he met his wife, Gen. Their first date was an airplane ride at 4:00 a.m.

There were many more rides that followed as they were married the next year and flew to Mexico in the Commonwealth Sky Ranger on their honeymoon. When they landed on the beaches of Mexico, their life began.

In 1955, a Stinson took them to Cuba with their infant daughter, Ann, then on to Bimini Island, where they made an emergency landing on the beach with a faulty alternator. For many of us, as pilots today, it is hard to phantom such flights in the days before VORs and GPS equipment.

One of Bill Bancroft's first Beechcrafts was the "Twin Beech." This was the one with the round engines and twin tails. This airplane took Bancroft, his family and several neighbors on an adventure to Alaska in 1967.

There was always an aircraft in Bill Bancroft's life, starting with the Commonwealth, followed by a Cessna 195, Cessna 210, Cessna 150 and others. Bancroft's brother, Jim, also became a pilot. Together, they began a search for a plane for Jim, which began with a Cessna 120, and then several Swifts. It was Jim that decided a Bonanza was going to be his next airplane, and Bill found him an N model. They both liked Bonanzas.

At this time, the adventure in Bancroft was starting to peak with an around-the-world flight. The design of the Bonanza seemed best suited for this trip. Bancroft purchased a 1972 A36 Bonanza and the two brothers began preparing the aircraft for a record-setting trip, "around the world westbound." Bancroft partnered with several other pilots from around the country including Frank Haile, Wayne Collins, Doc Wisner, Dan Bookout, Dan Webb, and Reinhard Buchally of Germany. They all shared the desire and a group departure was set.

This was the beginning of an era of huge tip tanked Bonanzas that became known as "Dolly Parton Tips," and later to be called "Texas Tips," not to draw further attention to their 100 gallon size each. The Bancroft brothers and Frank Haile were the gas tank engineers, designing and building them, as well as getting the approval for their use. Jim Bancroft related that it was burning the midnight oil for both of them to install a new engine, the Texas Tips, high frequency radio gear, and a very low frequency Omega navigation receiver. Gen was sent on ahead to San Jose, California to obtain the flight plans for the trip. Bill and Jim finished the installation and break-in of the new tanks.

The Bancroft brothers filed an IFR flight plan from Wisconsin direct to San Jose with Flight Service questioning them "where are you going to stop for fuel?" It was a night flight with Jim doing most of the flying while Bill slept, preparing his body for the long non-stop leg in the morning – San Jose to Honolulu. With Bill's copilot, Gen, of many years at his side, Bonanza N9489Q departed San Jose on June 6, 1986, using a good share of the runway for the 20-hour flight to Hawaii. The entire group had good fortune... they all made it and on time, becoming members of a very elite group of "Earthrounders" and aviation history.

A Friendship Found

FAA Great Lakes Region Flight Instructor of the Year for 2008, Mike Kaufman, and his wife, Linda, met Bill and Gen Bancroft in 1988, a few years after their trip, enjoying breakfast at an airport restaurant in Sextonville, Wis., which no longer exists. They were in the market for an airplane and had been looking for a Cessna 185 floatplane. Bill asked if the Kaufmans had ever considered purchasing a Bonanza? They decided to buy one and a friendship of many years began.

Bill Bancroft became Kaufman's Bonanza mentor. Kaufman later met Jim Bancroft and the two of them installed Osborne tip tanks on Kaufman's Bonanza while Kaufman taught Jim's son, David, to fly.

Bill Bancroft made many more adventurous flights, following his flight to Hawaii. He flew one of the first private U.S. aircraft to Russia after the Iron Curtain fell, in the Bonanza with Gen in the right seat.

After retirement from the family business, "pumps and equipment," Bancroft made three more dream flights. He volunteered to deliver aircraft for "Wings of Hope," an organization out of St. Louis that supplied aircraft to medical missionaries around the world. Bancroft delivered two Cessna 206s to Africa, east and west coasts. Kaufman had the privilege of flying Bancroft to St. Louis in his Bonanza to pick up a Cessna 206 that Bancroft was to deliver to Australia via Hawaii. Kaufman hinted to go along, however, his request was denied as Bancroft noted: "I need all the weight and space for fuel." After turning back to California on one attempt due to unfavorable winds, Bancroft made it on the second attempt, flying 15 hours of the 22-hour trip on solid instruments without an autopilot.

Bancroft had been flying for over 50 years and on May 29, 2008, Mike Kaufman was able to work with friends Bill Law and Scott Landorf of the FAA to get Bill Bancroft the coveted "Wright Brothers Award" for his 50 years of continuous accident-free flying!

Awards Continued On Page 48

Aeronautics Report

Wisconsin Bureau of Aeronautics

P.O. Box 7914, Madison, WI 53707-7914

David M. Greene, Director

(608) 266-3351

www.dot.wisconsin.gov



Meet WisDOT/Aeronautics Consultant, Karen Valley!

aren Valley joined WisDOT in May of 2000. She is in the Aeronautical and Technical Services Section as an Aviation Consultant. Karen promotes aviation education throughout the state and oversees the ACE Program (Aviation Careers and Education), which serves 35 students from Milwaukee Public Schools. The ACE program provides job-training



Karen Vallev

opportunities at General Mitchell International Airport. Karen also assists the engineering section with EEO/Labor Compliance issues.

Before coming to WisDOT, Karen worked for the



Wisconsin participants of the 2007 Wisconsin Aviation Careers & Education (ACE) Program, Milwaukee, Wis.

IFR/VFR Seminar

&

Volk Field Open House

Saturday, August 16, 2008 Volk ANGB Building 475 Camp Douglas, WI

5	IFR	VFR
9:00 a.m10:15 a.m.	IFR Charts & Procedures Update Mike Kaufmann, FAAST Representative	Tricks For The VFR Pilot Keith Myers, DPE
10:30 a.m11:45 a.m.	Reducing The IFR Workload Keith Myers, DPE	Mastering Airspace and Weather Requirements Woody Miner, MCFI
12:45 p.m2:00 p.m.	Future Flying with WAAS & ADS-B Mike Kaufmann, FAAST Representative	The Engine Failure Emergency - A Closer Look John Chmiel, MCFI
2:15 p.m3:30 p.m.	Wisconsin's New Weather Briefing System Jeff Taylor, WisDOT	

 Lat 43-56-15 North
 KVOK
 Long 90-16-01West

 Volk ATIS 120.0
 Volk Tower 127.5
 Approach Control 135.25

 Traffic Pattern: 2000' MSL
 Airport Elevation: 910'

All participants (fly-ins or drive-ins) must obtain a PPR prior to departure for Volk ANGB by calling Volk Base Operations at 1-800-972-8673 or Email at: wolk.baseops@wiertc.ang.af.mil

Breakfast and lunch will be available for a nominal fee



Wisconsin Air National Guard Wisconsin Bureau of Aeronautics



Private Industry Council with the Job Training Partnership Act, where she was a job coach and case manager for disadvantaged youth and adults. She also worked for five years at General Motors in Janesville, Wis.

Her goal is to promote aviation education throughout the state of Wisconsin and to ensure that equal opportunities are available to those who work on airport projects.

Karen and her family reside in Monroe, Wis. She holds a Private Pilot Certificate. □

Do You Know Your Aircraft?

by Jeff Taylor
WisDOT Bureau of Aeronautics

hen transitioning to a new aircraft, or maintaining proficiency in an aircraft you have flown for years, understanding complex aircraft systems, procedures and techniques can be a daunting task, even for the most motivated pilots. Taking a systematic approach can make the task manageable, but we should be aware of some human tendencies.



Jeff Taylor

Most pilots have little desire to delve deeply into aircraft systems, preferring to skip straight to the operating procedures to figure out "how to fly this baby." This is a similar approach many people take when they bring home a new electronic gadget or appliance. While the directions beg you to read through them carefully, we usually just turn it on and start trying to figure it out. As the frustration builds, we remind ourselves that "when all else fails, read the directions." Only then will we finally pull out the manual and start to work through it.

We should begin our systematic study with a thorough reading of the "general description" portion of the aircraft information manual. Don't try to memorize everything right away; the goal is to understand the general operation of the aircraft and the interrelationships of the various systems. While this material can sometimes be a little dry, taking your time to thoroughly review this section is essential groundwork for what is to follow.

After gaining an overview of the aircraft's systems, it is time to move into the crucial material we should commit to memory – emergency procedures and operating limitations. This is life-saving knowledge, which we should study frequently and thoroughly.

There are three steps you can take to study operating limitations and emergency procedures. First, read the material and commit the critical action steps and operating limits to memory. Second, use the aircraft as a training tool. While sitting in the cockpit, repeat the emergency procedures while you physically go through the actions. Lastly, as you begin to fly, practice the various procedures under the watchful eye of an instructor. Be sure to touch the controls and speak the procedures out loud. This will reinforce the "book knowledge" you have already gained and help your recall of these procedures when you need them most.

When you are certain that you are familiar with these procedures, you can begin to devote more study time to other areas, such as flight characteristics, communication and navigation equipment, normal procedures and techniques.

Now that we have a plan for learning a new aircraft, what can we do to stay proficient or increase what we know about our aircraft?

Consider developing a plan for continuous, systematic review. This plan would include a schedule for reviewing the technical and operational information on your aircraft on a regular and continuous basis. For example, over a year's time, plan on reviewing one or two chapters each month. Another useful tool in this plan could be completing a Pre-Solo Knowledge Exam for your aircraft. This exam, which all student pilots must pass before soloing,

focuses on essential information for the operation of an aircraft. Begin with filling out the questions open-book, which is an instructional exercise by itself, then challenge yourself by taking a closed-book blank exam.

The other part of your plan to become an expert pilot is known as "experience-based inquiry." This method uses actual flight experiences to initiate further study. For example, if you have an encounter with wake turbulence or windshear, you would study everything you can find about these subjects. There is a wealth of information available on all topics related to aviation safety.

The combination of a systematic plan of review and the commitment to study provides a pilot with a solid plan for the continued improvement in understanding their aircraft. We have all heard the saying, "a pilot certificate is a license to learn." And as student pilots, we were probably told, "for every hour flying, plan on studying at least two hours." Shouldn't we still follow this rule? What better way to follow through on this than to commit yourself to a plan for continuous, systematic review of the aircraft you fly.

In the end, you and your passengers will be the beneficiaries of your efforts to enhance your aircraft knowledge. Following these simple guidelines will truly make your flying a safer and more rewarding experience.

Fuel Conserving Techniques

by Jeffery Taylor
WisDOT Bureau of Aeronautics

t the Wisconsin Department of Transportation, we are committed to transportation safety, along with common sense efforts to enhance and preserve environmental quality. With the recent spike in fuel costs, pilots everywhere are looking for ways to reduce their aircraft's fuel consumption. While you

might think following proper leaning practices is your only tool, evaluating all of your operational techniques and maintenance practices along with careful record keeping can significantly reduce operating costs and extend the operating range of any airplane.

The first step - maintenance

Aircraft Rigging - The overriding goal is to get the aircraft to fly as close as possible to the way it was designed.

Regardless of the size, class or age of aircraft you fly, it's likely a 5 to 10 knot airspeed loss has crept in to your aircraft. We can learn from the airlines, who over the years, have learned to carefully monitor airplane performance in an effort to maintain operational efficiency. Through detailed record keeping, airlines have found that performance of a new aircraft deteriorates at a very predictable rate as misrigging, pressurization leaks, airframe dents, and insidious weight increases

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

Airframe drag is the real enemy of fuel conservation, and checking the rigging of your aircraft is an essential step in conserving fuel. On a regular basis, check passenger and cargo doors, landing gear doors, wing and cowl flaps for misalignment and adjust as necessary. Trim tabs should also be checked against cockpit trim position indicators to ensure accurate trim adjustments. If any one of these items is out of alignment, they will create additional drag. Aligning mis-rigged surfaces is extremely important, since if they are left out of alignment, you may be compensating with control inputs that can further compound the increase in drag.

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

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

Weight Reduction – Reducing the weight of your aircraft can be a quick, easy method to improve efficiency. Remember that every pound of weight requires an additional pound of lift, increasing the amount of induced drag. Go through your aircraft and refer to your Pilot Operating Hand-

book (POH) to decide if there is equipment or furnishings that are no longer necessary. As one pilot told me, "Pilots are like their airplanes; they get heavier with age."

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

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

The second step - aircraft operation

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

After determining a zero-wind altitude, calculate the specific range using

estimated ground speed. This will give you the best altitude for current conditions. The advantage of using specific range is how it relates distance to fuel used for each flight segment, be it during climb, cruise or descent.

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

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

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

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

OSCEOLA FROM PAGE 35

is Carolyn's plan to staff the shop regularly. This should allow pilots to drop by at any time and get the "big-airport" services in a more quaint, convenient, and friendly location. I know they are both very excited about the opportunities that lie ahead and are looking forward to personally meeting everyone who flies in for fuel, receives flight instruction, or just to say "hello." I am both happy and proud to be able to pass on Osceola's FBO.

LIGHT SPORT AIRCRAFT FROM PAGE 36

obvious choice of a standard category production airplane meeting the Sport Pilot parameters, such as J-3 Cubs, 7AC Champs, certain Ercoupe, Taylorcraft and Luscombe models, etc.)

First, meet the "Cheetah XLS," manufactured by Rainbow Aircraft (Pty) Ltd., of Springs, South Africa, marketed in the U.S. by Midwest Sport Aviation, LLC, of Richland Center, Wisconsin. Currently available as an EA-B quickbuild kit, this aircraft, reminiscent of early Piper Colts, can be purchased complete for about \$40,000 and assembled in less than 200 hours. Consider these performance specs when outfitted with the 85 hp direct-drive, air-cooled Jabiru 2200 engine: cruise speed of 95 mph at 65% power; fuel consumption of 3.75 gph; 1,000 fpm climb; 32 mph maximum crosswind component; 35 mph stall speed with full flaps; 628 lbs useful load; a 10:1 glide ratio; load factors of +6 and -4 g's; and a range of 670 miles and endurance of 7.5 hours, both with reserves. While perhaps reminiscent of it, this is not your grandfather's Colt. Rotax engines and many options are available, but for those of us on a budget, this is a lot of airplane for the price.

Brothers Jon, Steve and Paul Syvertson are the principals in Midwest Sport Aviation, LLC, based at the Richland Airport, 93C, in Southwest Wisconsin. Says marketing VP, Steve Syvertson, "The Cheetah is making Light Sport Aircraft what it was intended to be: affordable." Jon, the builder of the first Cheetah XLS in the United States, and a first-time aircraft builder himself, reports that the company gave an estimated build time of about 150 hours, but it took about 300 hours for him to complete. He is confident that the aircraft can be built in less than 200 hours, depending on the number and length of interruptions by fascinated and curious fellow pilots. "The construction methods are simple and consist of using wrenches, screw drivers, a drill, hand riveter and the occasional rivet nut tool," says Jon.

Ruggedly constructed, the Cheetah XLS consists of a bolted 6082 aluminum frame covered with 5 oz. Try lam

I would like to thank everyone who has taken the time to stop by and choose Osceola Aero over the years; what an experience it has been! The Osceola Municipal Airport has given me far too many friends to properly list and I am certain that the memories I have obtained the last 10 years will remain among the best of my life. Please join me in welcoming the Johnsons this summer by stopping by and saying hello.

See www.osceolaaero.com.

laminated sailcloth, similar to Kevlar-type rip-stop material common in the sail boat industry. The high-wing design features a fully-enclosed cabin, side-by-side seats and a conventional three-axis control system. The basic instrument package can be upgraded to whatever extent the builder chooses, depending on intended mission and pocket book thickness, allowing the Cheetah to serve as a capable cross-country VFR machine.

Older pilots might react against the bolted tubular airframe and sailcloth covering, but they should get over it. Newer, younger pilots, and transitioning ultralight pilots, not so steeped in the traditional construction methods and materials of standard category aircraft of the past, will likely embrace these new techniques and materials readily. Nostalgia aside, it is hard to see how the price/performance equation presented by the Cheetah XLS cannot but sway any rational buyer in this market segment.

For the full story on the Rainbow Aircraft Cheetah XLS, check out the Midwest Sport Aviation website at www. MWSportAviation.com, email the Syvertsons at Info@ MWSportaviation.com, or call them at 608-467-0233.

Rather have that new SUV and a Sport Pilot-eligible airplane as well? Consider buying an Experimental Amateur-built aircraft on the used market. Here you can just about pick your price, depending on what you demand in your flying machine. How about a single-seat, non-electric homebuilt classic, complete with folding wings so you can trailer it home for the winter? The "Bowers Fly Baby," winner of the 1962 EAA design competition, has been fitting that bill for more than 45 years! Among Fly Baby true believers, classic good looks and traditional construction techniques and materials, still reign supreme.

With over 300 Fly Babies on the FAA registry, and an active builder and owner community organized around the unofficial Fly Baby website, a ready market exists to buy and sell these terrific airplanes. The average prices today range from \$8,000 to \$12,000, with beautiful flying specimens readily available for about \$10,000. (Project airplanes



Hangar Space & Sites Available Osceola, Wisconsin Airport (KOEO)

- Only 45-Minute Drive From Downtown St. Paul, But More Affordable!
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Contact Dick Johnson @ 715-294-4500 Vist our website @ <u>www.osceolaaero.com</u> can be purchased for even less.)

The story of Pete Bowers and the Bowers Fly Baby has reached legend status in the homebuilder world, on a par with Bernard Pietenpol's classic 1929 design. As with the "Pietenpol," plans and materials packages are still being actively sold, and new aircraft are still being built.

I became enamored with the Fly Baby, when I first encountered one for sale several years ago, and the enchantment finally resulted in a purchase this spring. Pictured at the top of page 36 (second plane to the left) is the author taxiing in from his first flight in N15HT. The definition of fun on a budget! Insurance cost: \$636 per year; low fuel consumption; and low maintenance, which I can do myself. And I have had no problem lining up a local A&P/IA who likes homebuilt aircraft and is willing to do the annual condition inspection, even with me helping to slow him down in the effort.

Of course, the Fly Baby is only one of a homebuilt breed readily available for sale on an active market made through on-line and print publications such as Trade-A-Plane, Controller or Aero Trader, or via more specialized Internet-based sites such as Barnstormers.com. The point is, there is a world of Sport Pilot-eligible aircraft for sale out there at prices that start at about 10% of what a new Special-Light Sport Aircraft costs. And not only are purchase prices of homebuilts a fraction of the cost of new S-LSAs, other expenses of ownership such as insurance and maintenance, and even hangaring, are dramatically lower as well.

While not everyone's cup of tea, the used homebuilt solution makes aviation accessible to legions of aspiring pilots and aircraft owners. According to the Experimental Aircraft Association, there are now about 30,000 Experimental Amateur-built aircraft on the FAA rolls, so this segment of general aviation is clearly growing and here to stay.

It's hard to conclude an article

about making Sport Pilot recreational aviation more affordable without mentioning "The Making of Daisy Mae," the story of the design and construction of an all wood experimental biplane of the same name. Built by Marv Reese, O.P.S.B. (you will have to read the book or ask Marv to get the "degree" letters explained), an avid model airplane builder and retired in southwest Missouri, Reese scaled up his Daisy Mae model airplane into a full-scale flying biplane, all on his own and without the benefit of an engineering background, but merely by talking to people and researching.

After successfully building and flying Daisy Mae, Marv wrote the book, published it himself, and is now also selling the biplane plans. For an aspiring homebuilder like me, with little knowledge or skills at this point, I found the *The Making of Daisy Mae* to be an inspiration. It is very, shall I say, "irreverent," perhaps even bawdy, laced throughout with Marv's own sense of humor, which had me laughing and shaking my head in amusement at virtually every turn of the page. But I learned a great deal from Mary Reese about airplane design and construction, and other things too, not the least of which was that if you are persistent and focused, you can move mountains, or build a great airplane, over a relatively short time.

Plans for Daisy Mae can be purchased for \$165, and the book is available for \$35 from Aircraft Spruce and Specialty, or directly from Marv at 656 S. Rosewood St., Shell Knob, MO 65747. Contact him via e-mail at biplanemarv@centurytel.net.

The Special-Light Sport Aircraft (S-LSA) industry is approaching its first big shake-out. Sales of piston-powered general aviation aircraft are off 28% in the first quarter of 2008 from that same period a year ago. S-LSA sales are down even more; 30% through April, according to Dan Johnson of the Light Aircraft Manufacturing Association (LAMA). Checking the FAA rolls reveals that many of the certified S-LSA models

have only a few aircraft registered in the U.S. at this time. Some have none. It is unlikely that knowledgeable buyers will gamble on a purchase of these also-rans and soon-to-be orphans, making the odds of their ultimate success in the market place even more remote. What effect these market realities will have upon the prices of successful S-LSAs in the future, remains to be seen.

Whatever the future holds for the cost and availability of Sport Piloteligible aircraft, several things are certain. First, the discipline of the free market, and the rigors of competition, along with a slowing economy, will likely exert a downward influence on prices of new S-LSA, which is a good thing for those buyers who can participate in that market. Second, lower-priced alternatives will continue to be sought by value-conscious and less well-healed aviators, who are most of us.

This bodes well for the market for lower-cost, quick-build kits and simple used homebuilt aircraft. A stable market in these lower-end. Sport Pilot-eligible aircraft will also encourage those among us inclined to pursue our dreams of flight, whether by the route of purchasing a used aircraft like the Fly Baby, or by the path of constructing a quick-build kit like the Cheetah XLS. And for those truly ambitious few, the lonely road of an original design, like Marv Reese's Daisy Mae, lies open and filled with adventure and discovery. Whichever way we take, there are choices much more affordable than we might be thinking after perusing the great new S-LSA offerings. Life is good.

Editor's Note: Ed Leineweber is a Certified Flight Instructor with a particular interest in SP/LSA issues. His flight training focus is tailwheel transition training and the Sport Pilot Certificate. Ed has over 25 years experience in aviation and related businesses. He was an FBO owner in the past and is now a co-owner of an LSA dealership. Readers are encouraged to email him at edleine@countryspeed.com or call (608) 604-6515.

HIGH ON HEALTH

Doctors Without Orders: When Fewer Tests Are Better or...The Dark Side of The X-ray

by Dr. Andrew Culp, MD

EDITOR'S NOTE: This month's "High On Health" column is by Andrew Culp, MD. Dr. Culp is a family physician colleague of regular "High On Health" columnist, Dr. John Beasley. Dr. Culp is starting flying lessons this summer. Welcome to the aviation community, Dr. Culp!

s if you pilots did not have enough to worry about, here's something else to make you paranoid: every hour spent at altitude exposes you to even more radiation than when on the ground. Fast-moving particles from exploding stars (supernovae) and from solar flares (our own Sun) enter the atmosphere with the ability to strip atoms of their electrons. This is called "ionizing radiation." Once in the atmosphere, these particles collide with air particles such as oxygen and nitrogen nuclei, causing them to become ionizers themselves. A chain reaction ensues. And it turns out the higher we are, the more of this cancer-causing radiation is present to affect our own cells and organs.

But before you dismiss me as a quack who aims to ground all pilots for fear of "evil rays from outer space," read on. It turns out that radiation risks in pilots pale in comparison to the risks to our patients.

Let's put radiation exposure in perspective, comparing it to the common chest x-ray. A cross-country flight from New York to Seattle at 37,000 feet equals about one chest x-ray's worth of radiation. A single chest x-ray carries with it about a 1 in one million chance of causing a fatal cancer during one's lifetime. Now...someone living in Madison, Wisconsin, at 600 feet or so above

sea level, is exposed to the equivalent of 50 or so chest x-rays annually due to radiation from space. In comparison, someone who spends a total of a year at 30,000 feet would double that equivalent, to about 100 chest x-rays.

But even 100 chest x-rays is minimal in the grand scheme: that's still only 1 in 10,000 who would pick up a fatal cancer. Not bad, given that each of us already has a 1 in 7 chance of developing a fatal cancer in our lifetime. Overall, only about 10% of our total radiation exposure comes from outside the earth. The majority (50-60%) comes from radon gas seeping up from the earth's crust. Much of the rest is created by humans. The take-home point is this: even though there is a significant increase in radiation exposure the higher we are and the longer we stay there, the difference in exposure between the commercial pilot and the beach bum who stays at sea level and never sets foot on a plane, is minor compared to radon exposure and man-made radiation.

So, if I can be so bold as to say that flying causes cancer, albeit very rarely, then I need to make a more important confession: we doctors are causing cancer at far higher rates. The majority of man-made radiation comes from diagnostic medical x-rays. But as you might have guessed, it's not the radiation exposure from the occasional chest x-ray we need to worry about. The real issue comes in looking at other x-ray studies. A simple mammogram, for instance, is the equivalent of about 150 chest x-rays. A CT scan of the head is the equivalent of 400 chest x-rays. A CT scan of the chest? 1,600 x-rays. A CT scan of the belly? 2,000 or more chest x-rays. Newer types of scans which look in more detail at the heart and colon and procedures like cardiac catheterizations are exposing patients to far more radiation. A coronary CT

scan can produce the equivalent of 8,000 or so chest x-rays. That amounts to about 1 fatal cancer per 1,500 scans, or 8,000 additional cancers per 1 million patients. Overall, we can think of these higher-radiation procedures as exposing patients to the equivalent of months, even years, of natural background radiation, all at one time.

We can worry all we want about increasing air travel and projected cruising altitudes of 70,000 to 80,000 feet for future commercial flights. But we should really look closer to home when thinking about radiation exposure and safety.

Medical radiation exposure is rising sharply due to increased diagnostic imaging and newer, higher-dose scans. In 1980, about 3 million CT scans were being performed annually in the U.S. In 2005, about 60 million CT scans were performed. There has been a particular increase in the number of CT scans being performed on children, whose organs are particularly at risk for radiation-induced cancers.

So lighten up, and fly as high and often as you want. In the meantime, keep a close eye on your physician, making sure there is good reasoning and risk awareness with each x-ray test ordered for you and your family.

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(2009 date to be announced in Midwest Flyer Magazine.) Chris Hallstrand, Manager Price County Airport - Phillips, Wisconsin 715-339-3701



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* INDICATES ANY NEW OR UPDATED CALENDAR LISTINGS SINCE THE LAST ISSUE.

AUGUST 2008

- 8 Hutchinson (KHUT), Kan. Fly, Golf, & Dine. Come golf Prairie Dunes, site of the 2006 Sr. Open Championship! This private course is ranked 24th national & 25th worldwide. In addition, the 8th hole is considered the best hole in the country. We've arranged for a special afternoon tournament open to the first 12 people who sign up. A steak dinner will be provided following the tournament. August 15th is the rain date. Call for fee information and sign up. Ami 620-694-2692.
- 8-10 STORM LAKE (SLB), Iowa Fly Iowa 2008 Wings, Wheels and Water. 515-964-1398. www.flyiowa.org or contact Chuck McDonald 515-964-1398.
- 9 RICE LAKE (RPD), Wis. Fly-In at Rice Lake Regional Airport - Carl's Field. Pancake Breakfast 7-10am. Lunch 11am-1pm. Aerobatic Flying 11-11:30am. www. ricelakeairport.com
- 9 New Holstein (8D1), Wis. Wheels & Wings 2008. Breakfast & Lunch Served. 7am-3pm. www.atoztradin.com/8d1.html
- 9 BRIGHTON (45G), MICH. Fly-In/Cruise-In. Great Family Fun with good food. www. brightonairport.org
- 9 Madison, Wis. Wisconsin Aviation Hangar Dance 7-10 pm. The orchestra is "Ladies Must Swing." Costume Judging depicting WWII. Dance at Common Hangar Wisconsin Aviation Executive Terminal. Tickets can be purchased in advance: "Ladies Must Swing," PO Box 6161, Monona WI 53716-0161 \$10.00 in advance or \$12.00 at the door.
- 9 ALLEGAN (K35D), MICH. West Michigan

- Fly-In. www.WestMichiganFlyIn.com for details. 269-673-4157.
- 9* CLOQUET (COQ), MINN. Burgers and Brats 10am-2pm.
- 9* Wadena (ADC), Minn. Wings & Wheels Over Wadena Fly-In Breakfast 7am-Noon. 218-639-4769.
- 9-10 DETROIT (YIP), MICH. Thunder Over Michigan. A Warbird Show. yankeeairmuseum.org/airshow/
- 9-10 MILACA (18Y), MINN. Breakfast & 40th
 Anniversary Celebration. 9th Pig Roast,
 Hangar Dance & Camping. 10th Pancake
 Breakfast 7am-Noon. 320-266-3822.
 www.milacaairoort.com
- 10 CHETEK (Y23), Wis. Annual BBQ Charity Fly-In 10:30-3:30pm. Water Ski Show adjacent to fly-in. 715-456-8415.
- 10 St. Paul (21D), Minn. Pancake Breakfast at Lake Elmo Airport 7am-Noon. www.eaa54.org
- **10 D**ICKINSON (**DIK**), **N.D.** Planes on the Prairie. 701-483-1062.
- 10 APLENA (APN), MICH. Fly-In Lunch 10:30am-1:30pm. www.gaasch.net/eaa
- **QUEEN CITY (15MO), Mo. -** Watermelon Fly-In & BBQ 2pm-?. 660-766-2644.
- 10 Mendota (0C7), ILL. Breakfast 7am-Noon at Grandpa's Farm Mendota Airport. 815-453-2336.
- 10* BOULDER JUNCTION (BDJ), Wis. Musky Day Land & Sea Fly-In 9am-4pm. Transport to town activities. 715-385-2979.
- 10* VIROQUA (Y51), Wis. Pancake, French Toast, Eggs & Sausage Breakfast 7am-1pm. 608-606-9563.
- 10* Lino Lakes (8Y4), Minn. Pig Roast at Surfside Seaplane Base Noon-4pm. 612-247-9771.
- 10* Waseca (ACQ), Minn. Fly-In 7am-?.
- 10* Humboldt (0K7), Iowa Breakfast 7am-Noon. Antique & Homebuilt Aircraft on Display 515-332-1863.
- **10*** Walker (Y49), Minn. Pancake Breakfast 7:30am-12:30pm.
- 15-17 CHICAGO, ILL. 50th Annual Chicago Air & Water Show. 15th - Aerobatic Flying, Beach Concert, Night Show & Fireworks Display.
- 15-17* WILD ROSE (WI23), WIS. Ultralight/Light Aviation Fly-In. Food Available all day on Saturday. Camping. 715-536-8828.
- 16 CAMP DOUGLAS, Wis. Biennial Volk Field Open House & Fly-In 0800-1600. GA Fly-In (Pre-registration Required 1-800-972-8673). WisDOT VFR-IFR Seminars, Static Military Aircraft Display Etc. www.volkfield.ang.af.mil
- FOREST LAKE (25D), MINN. Fly-In & Open House 10am-4pm. Brats, Burgers & Ice Cream. Grass Runway. 651-776-1717.
- **LAPEER (D95), MICH. -** Pancake Breakfast 7am-? & Lapeer Days Festival. 810-664-6966.
- 16 Northport (5D5), Mich. Pancake Break-

- fast 8am-Noon at the Woolsey Memorial Airport. 231-386-5762.
- **HOLLAND (HLM), Mich. -** AirAffair at Park Township Airport 7am-3:30pm.
- **16*** FREMONT (FFX), MICH. Dawn Patrol Pancake Breakfast 7-11am. 231-924-7080.
- **Sturgeon Bay (SUE), Wis. -** Pancake Breakfast 8am-?. 920-743-6082.
- **16-17*** Lakeville (LVN), Minn. AirExpo 2008 at Airlake Airport.
- 17 BROOKFIELD (02C), Wis. Ice Cream Social & Chicken & Corn Roast Lunch Noon-5pm. 262-781-4213.
- **Mankato (MKT), Minn. -** Pancake Breakfast 7:30-1pm. 507-345-1510.
- **Monona (7C3), Iowa -** Pancake Breakfast 7am-Noon. 563-539-2640.
- Tomahawk (TKV), Wis. Pancake
 Breakfast, Live Music, Skydivers & more.
 7:30am-6pm. 715-499-3315.
- 17 Paynesville, Wis. Breakfast & Air Show (10:30am & 12:30pm) 7:30am-1pm. 320-243-3714.
- 17 JOLIET (JOT), ILL. EAA Warbirds of America Squadron 4 BBQ. 847-356-9056 www.warbirdsquadron4.org
- 17 HERMAN (O6Y), MINN. <u>CANCELED</u> DUE TO COMMUNITY EVENT CONFLICT.
- 17 Mason (TEW), MICH. Mason Aviation Days. Pancake Breakfast 7-11:30am. Lunch Noon-4pm. 517-351-0448.
- **B**OYCEVILLE (3T3), Wis. Pancake & Sausage Breakfast 7-11am. 715-643-6100.
- 20-24 MIMINISKA LODGE, ONTARIO Midwest Flyer Canadian Fishing Fly-Out. For details email dave@midwestflyer.com or call 608-835-7063. Limited to first 20 people!
- 22-24 EDINBURG (9LL5), ILL. Midwest Ultralight/ Light Aircraft Rendezvous. Sunrise-Sunset. 217-623-5772. Monitor 122.9
- **22-24 DEKALB (DKB), ILL. -** Cornfest on the Airport (Runway 2/20 Only Open). 22nd (Noon-11pm), 23rd (9am-11pm) & 24th (9am-6pm). 815-748-2020.
- 22-24* WICHITA (AAO), KAN. Wichita Flight
 Festival, biggest mid-American Air Show
 at Jabara Airport. 316-267-2817. www.
 wichitalightfestival.com
- 23 GUTTENBEG, Iowa Annual Abel Island Fly-In, Float-In, Potluck & BBQ at Abel Island Airpark Noon-3pm. www.abelisland.com. 319-480-0913.
- 23 ALPENA (APN), MICH. Wings Over Alpena Air Show. www.wingsoveralpena. com/woa2008.htm
- **23 C**HILLICOTHE **(CHT)**, **Mo. -** Breakfast 7am-Noon. 660-359-5396.
- 23 GLENCOE (GYL), MINN. Sweet Corn & Bratwurst Feed Fly-In 10am-2pm. 320-238-2376.
- 23-24 Kansas City (MKC), Mo. KC Aviation Expo & Air Show featuring the Thunderbirds. www.kcairshow.com/index.html
- 24 Cottage Grove (87Y), Wis. Brat-N-Bean Feed. 11am-3pm. zflyer2@yahoo.com

- 24 CUMBERLAND (UBE), Wis. Pancake
 Breakfast 7-11am. Aerobatic Demonstration 11-Noon (Field Will Be Closed)
 Camping on Field.
- 24 Burlington (BUU), Wis. Lions Breakfast & Fire Dept. Lunch. Display of antique tractors & cars. 262-945-5920.
- **ROCHELLE, ILL. -** Pork Chop Lunch 11am-3pm. 815-562-8619.
- **24* P**IPESTONE, **M**INN. Pancake Breakfast 8am-1pm. 507-562-2473.
- 24* OWATONNA (OWA), MINN. Breakfast 7am-12pm. Check NOTAMS for construction updates. 507-444-2448.
- **24* GRYGLA (3G2), MINN. -** Breakfast 7am-Noon. 218-280-5276.
- 24* WINDOM (MWM), MINN. French Toast & Pancake Breakfast 8am-1pm. 507-830-0273.
- 27 BLAKESBURG (IA27), Iowa Antique Airplane Association Fly-In. www.antiqueairfield.com/
- 30 SHELL LAKE (SSQ), Wis. Pancake Breakfast 8-Noon. 715-468-4592.
- 30* New Lisbon (82C), Wis. Breakfast, Lunch, Antique & Classic Cars, Farm Equipment, Arts & Crafts at Mauston-New Lisbon Union Airport 6am-3pm. 608-565-2136. Rain date 31st.
- 30-31 Red Wing (RGK), Minn. Wings of Freedom/Salute to Veterans Airsho at Red Wing Regional Airport located in Pierce County, Wisconsin
- 30-9/1 CLEVELEAND, Оню Cleveland National Air Show featuring U.S. Navy Blue Angels & etc. www.clevelandairshow.com
- 31 Mondovi (W269), Wis. Log Cabin Airport Annual Fly-In 10am. Lunch @ Noon. Grass Strip. 715-287-4205.

SEPTEMBER 2008

- 1 SHELDON (SHL), Iowa Sky-Hi Flyers Flight Breakfast 6:30-11am. 712-261-3320.
- 1-7 GALESBURG (GBG), ILL. National Stearman Fly-In. www.stearmanflyin.com
- 7 New Ulm, Minn. Lions Fly-In Breakfast 7:15am-12:15pm. 507-276-0233.
- 6 SUPERIOR (SVW), Wis. Pancake Breakfast at Superior Bong Field 8-11am. 218-729-7764, www.EAA272.org
- 6 Marshall (RMY), Mich. Full Breakfast 8am-Noon at the Brooks Field Airport.
- 6 **DECATUR (DEC), ILL. -** Fly-In Breakfast 8-11am. 217-795-2393.
- 6 Osceola (OEO), Wis. Wheels & Wings Pancake Breakfast & Lunch. 715-294-
- 6 TRAVERSE CITY (TVC), MICH. Wings of Mercy CareAffaire TVC Pancake Breakfast 7:30am-Noon at Cherry Capital Airport. 231-941-9764.
- 6 WORTHINGTON, MINN. Fly-In & Air Show.
- 6* Lake Elmo (21D), Minn. Aviation Day 7am-Noon in conjuction with Fall Festi-

6* BLUE EARTH (SBU), MINN. - Fly-In Pork BBQ & Sweet Corn Supper 4-7:30pm. Hangar Dance with Live Band following.

val. 651-439-5040. www.eaa54.org

- 6* Jackson (MJQ), Minn. Breakfast 7:30-
- 6* Jackson (MJQ), Minn. Breakfast 7:30-11am. Professional, Giant & Amateur Kite Fly 12:30-5pm. Rain Date 7th. 507-847-3599.
- 6* MERRILL (RRL), Wis. Breakfast, Lunch, Flea Market & etc. 8am-4pm. 715-536-2024
- MIDLAND (3BS), MICH. Barstow Fall Fly-In Pancake Breakfast at Jack Barstow Airport 7-11am. 989-274-1683.
- 7 Maple Lake, Minn. Pork Chop Dinner Fly-In 11:30-2pm. 763-477-6021.
- 7* New Ulm (ULM), Minn. Breakfast 7:30am-Noon.
- 10 Ознкозн (1WI1), Wis. Chapter 252 Corn Roast at Williams Airport. Bring a dish to pass. 5:30pm. 920-426-1854.
- 13 FARIIBAULT (FBL), MINN. Pancake Breakfast 7am-Noon.
- 13-14 EAU CLAIRE (EAU), Wis. "2008 Chippewa Valley Airshow" at Chippewa Valley Regional Airport. Gates open at 8:30. Featuring Blue Angels & Golden Knights plus many others. 888-523-FUNN. www.chippewavalleyairshow.com
- 14 MOUNT MORRIS (C55), ILL. Fly-In Breakfast 7am-Noon at the Ogle County Airport. 815-732-7268.
- 20 Niles (3TR), Mich. Fall Fly-In Breakfast 7am-Noon at the Jerry Tyler Memorial Airport, 269-684-0972.
- 18-19 Shakopee, Minn. Minnesota Aviation Trades Association Conference at the Canterbury Inn. General Aviation Business Event of the Year! 651-450-6200. www.mnataonline.net
- 20-21 Belleville / Scott Air Force Base /
 MidAmerica Airport (BLV), Ill. Air Show
 Featuring the Thunderbirds. www.scottairshow.com/
- **Owosso (RNP), Mich. -** Fall Fly-In Pancake Breakfast. 989-743-4519.
- 21 Hinckley (0C2), Ill. Breakfast On The Grass 7am-Noon, 815-758-6948.
- 21 Turtle Lake (91N), N.D. Fly-In Breakfast. 701-448-2253.
- 21 TAYLORVILLE (TAZ), ILL. Fly-In Breakfast 7-11am at the B&L Hangar. 217-226-4005.
- 24-28* Lexington, Ky. American Bonanza Society Annual Convention & Trade Show. www.bonanza.org/go/Exhibitors
- **26-28* West Bend (ETB), Wis. -** B-17 Tour 8am-4pm. 26th 4pm Cookout. 27th Pancake Breakfast. www.eaa1158.org 414-588-2488
- 27 HANOVER (64.I), IND. Wood, Fabric & Tailwheels Fly-In at Bottom Flying Field. 812-866-3211. www.LeeBottom.com

- **Bowstring (9Y0), Minn. -** Chili & Hot Dog Fall Fly-In 10am-2pm. 218-832-3567.
- 27* Manitowish (D25), Wis. Cranberry Colorama 9am-3pm. 888-626-9877. www.manitowishwaters.org
- **27* Land O'Lakes (LNL), Wis. -** Airport Day 10am-4pm. 715-547-3337.
- 27* SILVER BAY (BFW), MINN. Fall Colors Fly-In Buffet Brunch 9am-1pm. Rain Date 28th, 218-226-3779.
- **27-28* S**τ. **L**ouis (**ALN**), **MO**. Fly-In & Car Show 27th 9am-3pm & 28th 9am-2pm. 888-562-9950.
- 28 Berrien Spring (C20), Mich. Breakfast 7-11am. 269-471-3120. airinfo@ andrews.edu
- 28 PORT HURON (PHN), Mich. Wings, Wheels & Watercraft Pancake Breakfast & Lunch 7am-? at the St. Clair County Intl Airport. 810-364-6890.
- **Boscobel (OVS), Wis. -** Breakfast 8:30am-Noon. 608-375-5001.
- 28* Madison (DXX), Minn. Breakfast 8am-1pm at the Lac Qui Parle County Airport. 320-598-3467.

OCTOBER 2008

- PEORIA (PIA), ILL. Mooney Pilot
 Proficiency Program at Greater Peoria
 Regional Airport. 210-525-8008.
- 4* STURGEON BAY (SUE), Wis. Fall Color Fly-In at Door County Cherryland Airport 8-11am. 920-743-6082.
- 4* RIO CREEK (128), WIS. Fall Color GPS Search Tour at Walter's Agri-Center Airport 8am-2:30pm. 920-837-7777.
- 5* IoLa (68C), Wis. Fall Color Fly-in & Chili Dinner 8am-3pm. at Central County Airport. 920-596-3400.
- 11 MOUNT MORRIS (C55), ILL. Pig Roast "Pork & Pie" Feast Noon-4pm at Ogle County Airport. 815-732-6930.
- 11 Оsнкоsн (OSH), Wis. Chili Bash bring your favorite batch of chili and/or a dish to pass 3pm. www.eaa252.org
- 12 ALPENA (APN), MICH. Fly-In Lunch 10:30am-1:30pm. www.gaascho.net/eaa
- 12-16 Memphis, Tenn. Illuminating Engineering Society (IES) Aviation Lighting Seminar at Peaboy Memphis Hotel. 662-869-8655. www.iesalc.org/
- 19 WATERVLIET (40C), MICH. Chili-Hop Fly-In 11am-4pm. Fall Color Hayrides. 269-463-5532.
- 19 TayLorville (TAZ), Ill. Fly-In Breakfast 7-11am at B&L Hangar. www.eaa1315.
- 25 DECATUR (DEC), ILL. Chili Day Fly-In 11am-2pm. 217-795-2393.

NOVEMBER 2008

- **5-8 San Jose, Calif. -** AOPA Expo. www. aopa.org
 - If Your Event Isn't Listed Email info@midwestflyer.com





(L/R) Randy Arneson, Eddie Hughes as "Elvis," Karol and Roy Arneson.

Flying Scotchman Celebrates 50 Years

MINNEAPOLIS, MINN. – The "Flying Scotchman" flying club and flight center celebrated its 50th anniversary on June 7 with a hangar party. Featured was Elvis Presley impersonator, Eddie Hughes, and the band the "Fugitives."

The Flying Scotchman was established on June 6, 1958 as a

membership-only flying club at the old University of Minnesota flight facilities at Anoka County Airport (ANE). The club moved to Minneapolis-Crystal Airport in 1960, and that is when Roy and Karol Arneson purchased the assets of the club. In 1972, the club went from a member-owned club to a full commercial operation.

In order to rent an aircraft or take flight instruction at Flying Scotchman, customers are required to become a member for insurance reasons. Other services include full-service fuel sales and charter.

Today, the Flying Scotchman is operated by the Arnesons' sons, Randy, Robert and Roger Arneson, and their granddaughter, Heather Arneson (www.flyingscotchman.com).

CAP Promotes State Aeronautics Director

SOUTH ST. PAUL, MINN. – Minnesota Department of Transportation (Mn/DOT), Office of Aeronautics Director, Gary E. Workman, was made an official member of the Minnesota Legislative Squadron, May 15, at the Civil Air Patrol's (CAP) Minnesota Wing Headquarter's fleet aircraft maintenance facility at Fleming Field in South St. Paul.

The new Minnesota Wing Commander, Colonel Tom Theis, was on hand to recognize Workman and wel-



(L/R) Minnesota CAP Wing Commander, Col. Tom Theis, and MnDOT Aeronautics Director Gary Workman.

come him to Civil Air Patrol. Workman was also promoted to the rank of Major.

Workman was given a tour of the facility by Colonel Kevin Sliwinski, Director of Government Relations; Major Jerry Rosendahl, Wing Vice Commander; and Lieutenant Colonel John Quilling, Director of Plans and Programs. Workman had the opportunity to view a Gippsland GA-8, the ARCHER Hyperspectral Imaging System, a Garmin 1000-equipped Cessna 182T, a Cessna 182 RG, and fleet aircraft undergoing scheduled maintenance.

St. CLOUD FROM PAGE 30

Training aircraft include three Cessna 152s, a Cessna 172, a Cessna 182RG, an Evektor SportStar, and two Beechcraft Duchess twin-engine aircraft. In addition, the SCSU Aero Club has another six aircraft, including two Cessna 152s, three Cessna 172s, and a Piper Arrow.

St. Cloud State University has a Frasca 242 flight simulator on campus that simulates a turboprop Beech 1900 regional jet; and a Frasca 141 flight simulator at St. Cloud Regional Airport, soon to be equipped with a Garmin G1000 navigational system. There is also an aviation computer lab on campus.

Successful Graduates

Approaching its 60th year at St. Cloud State University, aviation continues to adhere to the established mission and vision that has long made the department a success. By offering students a wide variety of degree programs and internship opportunities

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and the support of an active faculty, students are inevitably prepared for a highly successful professional career in aviation.

Dr. Anderson says that two-thirds of all SCSU students major in the Professional Flight curriculum, but there are many other aviation career options available. SCSU graduates are currently enjoying rewarding careers in air traffic control, airline and corporate flight departments, airport operations and management, aircraft dispatch, aircraft scheduling, aviation education, and customer service. Job placement is almost a certainty because of St. Cloud State University's reputation for education excellence. In fact, "bridge agreements" with some of the airlines like Mesaba guarantee a job interview, providing the student completes course requirements in the Professional Flight program.

Among the SCSU graduates we spoke with included Rachel Norman, Customer Service Manager at Wipaire, Inc. in South St. Paul, Minnesota; Melissa Galvan, Manager at Willmar Municipal Airport, Willmar, Minn.; and Mitch Kilian, Director of Legislative Affairs with the Metropolitan Airports Commission in Minneapolis.

For Rachel Norman, who worked as a ground instructor in the Mesaba Airlines flight operations training department for two years following graduation, it was a matter of wanting to experience working for the airlines to see if it was something she wanted to do for the rest of her life.

"It wasn't the right fit for me, and although I liked the training department at Mesaba, working for the airlines lost its allure after awhile," said Norman, who also did not like the schedule or the time away from home, which is required to advance in the airline environment.

"I have friends that just love flying for the airlines, and I am happy for them. It just wasn't for me." Norman has found being the customer service manager for one of Minnesota's premier general aviation manufacturers and aircraft service facilities, more rewarding.

Fellow alumna, Melissa Galvan, loves flying, but chose "airport management" for her career because she finds it more challenging and fulfilling. Opportunities for growth as a person and as an airport manager are greater than she had imagined.

"As an airport manager, I am able to work with the airlines and other tenants, as well as the FAA and MnDOT Office of Aeronautics, so I have expanded my knowledge of the industry a great deal," said Galvan. She commends the faculty at SCSU for providing not only a quality education, but also for helping her obtain an internship at South St. Paul Airport-Fleming Field, South St. Paul, Minnesota. After her internship, Galvan was offered and accepted a position as the manager of the new Willmar Municipal Airport in central Minnesota, which was under construction at the time. When she accepted the position in 2006, Galvan was in her final semester at SCSU. She not only coordinated the completion of the airport construction project, but also hosted the Minnesota Airports Conference in Willmar that spring before graduating, so she was definitely up for the chal-

Alumnus Mitch Kilian got his start with the Metropolitan Airports Commission (MAC) as an intern, and is now the Legislative Affairs Director for the commission. He graduated from SCSU in 1990.

Kilian says the difference between SCSU's aviation program and that of larger campuses is in the hands-on experience he got from being involved with the SCSU Aero Club, and as a member of the SCSU Flight Team. Kilian served as president for a time, and was directly responsible for managing the club's fleet of aircraft. "Where could I get that kind of real-life experience other than through a program like SCSU," said Kilian.

As an intern at MAC, Kilian worked with independent business people like Nancy Grazzini-Olson of Thunderbird Aviation and Academy

College, and state legislators, who he feels are valuable contacts to have in his current position. In his spare time, Kilian now serves on the program advisory boards at St. Cloud State University and Academy College in Bloomington, and is an adjunct professor at Minnesota State University in Mankato.

Always Have A Plan "B"

"We tell our students it is good to have a plan "B" to make themselves marketable by having education and experience in customer service, maintenance, computer technology or business," said Dr. Anderson. "This also helps make our students more well-rounded individuals."

Deciding between flying for a career, air traffic control, aircraft maintenance, or airport management all boils down to "lifestyle" issues, said Dr. Anderson. In fact, SCSU has a course which specifically deals with this topic so students know in advance what to expect in a job before completing their education.

So whether it is "college hockey" that interests you, or a "career in aviation," St. Cloud State University can be an attractive alternative to other more expensive and larger schools.

For additional information on St. Cloud State University, contact Dr. Steven Anderson at 320-308-2107 (www.StCloudState.edu/Aviation).

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Fly Minnesota Airports Passport Program

by Gary Workman
Director, MnDOT Offfice of Aeronautics

omeone once said flying resembles a box of candy. Until you really get into it, you never know how sweet it can be. With summer here, what better time is there to learn about flying,



Gary E. Workman

aircraft maintenance, airport operations and the vast array of aviation industry career fields? What better time is there to improve your flying proficiency or even upgrade your rating? What better time is there to practice safety techniques and polish

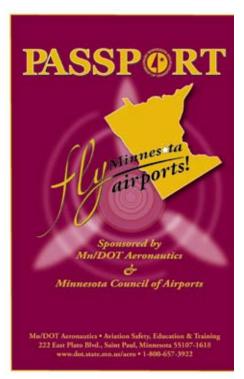
Your PASSPORT To Adventure!

by Dan McDowell
Public Affairs Coordinator
MnDOT Offfice of Aeronautics

lying for most aviators is fun.
The freedom experienced when you fly is little short of absolutely marvelous. But now and then something comes along that makes flying even more fun. In fact it makes it an adventure! One of those things is the new "Fly Minnesota Airports Passport" program.

The program is sponsored by the Minnesota Council of Airports (MCOA) and Mn/DOT Aeronautics, and is designed to promote safety and education by encouraging pilots to practice approaches and landings in your safe flying skills?

It is also a great time to take someone from your city leadership for a flight around your town. Let them see the advantages and value of the airport and flying. Take the opportunity to educate them about all the great things aviation brings to a community. Help them understand that aviation benefits everyone, even those who have never flown!



many different environments. It does that by rewarding pilots who visit Minnesota's publicly-owned airports, aviation museums, and attend FAA Safety Seminars.

When visiting airports and museums, or attending safety seminars, pilots receive a stamp in their passport. Passports can be obtained at any one of the 136 publicly-owned airports or contact Mn/DOT Aeronautics. After you have visited the required number

Show them the importance of supporting and maintaining a quality airport in the community. Doing that is a small investment in the future of your airport and aviation that could pay great benefits in the future.

When you go flying this summer, instead of just flying from point A to point A, or point A to your usual point B, why not get a little adventurous and visit a different Minnesota airport. In fact check out the "Fly Minnesota Airports Passport Program." See what all the excitement is about by going to: http://www.dot.state.mn.us/aero/aved/Passport%20program/Passport.html

Make this a summer of flying fun by participating in the Passport program. Also take the time to share aviation! Doing so enhances the value of aviation to the entire community.

Be safe, be alert, and enjoy the rest of the summer! \Box

of airports and museums, and attended the required number of FAA safety seminars, you qualify for a prize!

There are three prize categories: Bronze, Silver, and Gold. To qualify for the Bronze level, pilots must land and receive their stamp from 34 of the 136 airports, two aviation museums, and attend two FAA safety seminars. Silver level requires 68 of 136 airports, four museums, and four FAA safety seminars. Gold level requires 130 of 136 airports, six museums, and six FAA safety seminars.

Stamps to validate your airport visits are located in the arrival/departure building next to the pilot logbook at most airports or at the FBO at theairport. When the number

CONTINUED ON PAGE 52

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Going to the Source

by Dan McDowell
Public Affairs Coordinator
Mn/DOT Office of Aeronautics

n an April 21, 2008 article written by David Pearson and published in the Dow Jones Newswire in Paris, France, he discusses the impact of the growing pilot shortage on the world's airlines. Pearson said at the outset of his article, "A worsening worldwide shortage of airline pilots could slow the aviation industry's growth and increase labor costs just as carriers are grappling with soaring fuel bills. (sic) That means unless there is a big increase in training, or a slowdown in traffic growth - which seems unlikely - the industry is heading for trouble."

The article quotes Geneva-based International Air Transport Association Director General Giovanni Bisignani saying "19,000 pilots will have to be trained on average every year through 2026 to meet expected demand as airlines expand their fleets. That is 2,000 more than the Montreal-based organization predicted just five months ago. Training facilities worldwide churn out 16,000 pilots a year now. The problem isn't only that there aren't enough pilots, but that there are too few experienced ones to captain commercial aircraft."

According to recent estimations made by the International Air Transport Association (IATA), airline passenger traffic will grow at an average annual rate of 5.1% between 2006 and 2011. Airlines are on track to carry 2.75 billion passengers in 2011.

Juergen Haacker, IATA's director of operations in the same article indicates that, "the shortage is most serious for captains. Pilots normally are required to accumulate thousands of flying hours as first officers before they are allowed to move into the captain's seat."

David Pearson writes,"...but the challenge facing industry regulators is to train pilots faster and better without

compromising safety. The International Civil Aviation Organization decided two years ago to increase the age limit for a commercial pilot license by five years to 65, but industry experts say this is only a stopgap measure. The pilot shortage has prompted flying schools to step up their operations, but they still can't cope."

Pearson continues, "The International Federation of Air Line Pilots' Associations, which represents pilots' labor unions, has calculated that, simply on the basis of the aircraft industry's order backlog, there is a need for a net increase of between 55,000 and 75,000 new pilots globally."

The article goes on to say that airlines, especially European Airlines, "may be constrained in (their) capacity to operate flights by 2009 because of the flight-crew crunch, but French and Dutch airline management says they are hiring close to 300 pilots per year in 2008 and 2009, which is a significant annual increase over the period from 2003-2006.

In another recent article, Australian airlines are suffering from growing pilot shortages in part because their pilots are being lured to overseas airlines. One of the additional issues faced by Austrailia and other countries around the world is a shortage of regional airline pilots.

In an article posted by ABC News Australia, the head of the University of South Australia Aviation Academy, Stephen Peters, said "...the attraction for pilots to go elsewhere is compounding the problem of finding air instructors. You find that quite a lot of pilots when they start their career get their commercial license and then go on and get an instructor rating. They then spend three or five years as flying instructors before moving onto the airlines. Those people tend to be very attractive to the airlines."

And that brings us to the source for pilots, "General Aviation." Every pilot flying today started their aviation training and careers in a General Aviation aircraft! Even U.S. Air Force pilot candidates are trained in GA aircraft! So before you train and fly in this,



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and find a new direction for your life in Minnesota's flight schools, and aviation program colleges. The choice is yours and the opportunities in aviation are waiting for motivated, welltrained people. Make your decision to start your aviation career today in General Aviation. You can soar to new heights when you start by going to the source.

PASSPORT FROM PAGE 50

of stamps meets a prize level requirement, the passport can be submitted to Mn/DOT Aeronautics to claim the prize. The passport will be verified and the appropriate prize issued. In addition, that passport will be returned to the pilot so he or she can continue on their adventure towards the next prize level. Prize awards and pilot recognition will be made at the annual MCOA Conference.

MCOA is providing the prizes for

the program. They are accomplishing this through industry and sponsor participation and support from around the state.

The program is open to any pilots. Minnesota residency is not required, but you must have the official "Fly Minnesota Airports Passport" in order to participate in the program. Only one passport per pilot is needed and there is no charge to obtain a passport or to participate in this program.

A number of airports have already

reported a very strong and positive response from pilots about the program. Several airports have requested immediate re-supply of passports because of increasing pilot participation and additional operations at their fields! One airport manager recently stated, "The passport program has really taken off!"

So take advantage of this great opportunity to make this a summer of fun. Go out today and get your passport to adventure!

The Value of Communication

by Rick Braunig
Aviation Representative
Mn/DOT Office of Aeronautics

he birds are back. It seems every flight these days I see a bird whip past in close proximity to me. So far I've gotten four kills... I just need one more to be an ace! Luck-



Rick Braunig

ily none of them have gone into the engine or through the cockpit, but that's a tribute to their flying ability, not mine. By the time I see them, it's too late to do more than flinch.

In 2006 we got an aircraft with a traffic information system (TIS) and suddenly all those aircraft out there with transponders were displayed on our moving map. With TIS we were amazed at the number of aircraft out there in close proximity to us and we realized that aircraft can be hard to spot even if you know exactly where to look.

Now what does this have to do more to with "communication?" Well for not to. 52 AUGUST/SEPTEMBER 2008 MIDWEST FLYER MAGAZINE

those of you flying around without TIS, communication is your best tool for avoiding a close encounter with another aircraft.

I hope everyone is using their radios when flying around the airport. At non-towered fields you should make a call 10 miles out, a call entering the pattern and then your base and final calls. It doesn't hurt to activate the lights when entering the pattern as a signal to mowers and plows and other folks who might be working on the field. Whatever you can do to make others aware of your presence is good.

I'd like to see more people using their radios during their entire flight. If you always fly on an instrument flight plan, feel free to flip to the next article, "I'm not talking to you." It is those of us who fly around VFR that get surprised by other aircraft crossing our paths. Without TIS, the next best thing is a call from an air traffic controller telling you where to look. Even with TIS the call from the controller can provide a lot more information, telling me where the other aircraft is headed or letting me know that the other guy has me in sight. And the best part is that it doesn't cost anymore to talk on the radio than it does

I know some folks are uncomfortable talking to air traffic controllers. If you got to know them you wouldn't be so intimidated. Some of them aren't even pilots. I know it's embarrassing to stumble through a radio call, but by following just a few simple guidelines, you too can sound like an ATP.

The first thing you need is the right frequency. For those of you with a GPS, normally one of the "nearest" pages will list the air traffic control frequencies. There is a page in the Airport/Facility Directory that has the Air Route Traffic Control Frequencies and if all else fails, Flight Service will provide you with the appropriate frequency.

I guess I should mention here that right now the frequency for Minneapolis Approach on the south side of the parallel runways at Minneapolis is 134.7. I know your area chart probably still says 125.0, but the FAA made an emergency change so it will take a couple of months for your charts to catch up.

Once you tune up the right frequency, just listen for a break and then make your call. "Minneapolis Center (them), Lear Jet 145RB (I can dream can't I)." When they respond, then it's

your time to sound like a pro. Now what do I say? Tell them where you are, where you are going and what you want from them. "Center, 145RB 10 miles west of Forest Lake enroute to Cambridge at 4,500, requesting Traffic Advisories." They will give you a discreet transponder code. "5RB squawk 0404." Read that back. "Center 145RB squawking 0404." Once they identify you, they will probably say something like: "5RB is Radar Contact. Standby for advisories." That was easy, wasn't it?

At some point you'll get close enough to your destination that you'll want to change to the Common Traffic Advisory Frequency (CTAF). The conversation should go something like this: "Center, 145RB, Cambridge in sight, ready to switch to advisory."

"5RB, roger; no traffic observed between you and Cambridge. Squawk 1200 and cleared off Center frequency."

I know you probably still have some reservations, but talking with air traffic control is easier than stalls. In both cases you were probably nervous in the beginning, and in both cases you get more comfortable once you've done it a few times. Talking on the radio is better than doing stalls though, because even if you mess it up, it probably won't kill you.

A couple words of caution about "radar advisories." Air traffic controllers provide advisories as workload permits. If the controller is really busy, he may forget about you. The primary means of collision avoidance is still "see and avoid." This is just

a tool to give you a better chance of seeing and avoiding. Radar coverage is required for traffic advisories. If you fly at the bottom of the radar coverage, the controller won't be able to see traffic below you. Still the benefits are great.

In addition to getting help in avoiding other aircraft, should you have an emergency, you are already talking with someone who can get you help. They know where the nearest airport is and usually can provide a warning for bad weather along your route as well as possible ways to get around it. Once you start using the services of your local air traffic controllers, you'll find yourself getting more comfortable every day and come to appreciate the value of communication.

DESTINATIONS

Ephraim Gibraltar Airport (3D2), Door County, Wisconsin

isconsin's Door County has long been a favorite travel destination with its scenery and crystal clear waters of Lake Michigan, and Ephraim Gibraltar Airport in Ephraim, Wisconsin (3D2) is the place to fly to.

Immediately across from the airport is Peninsula State Park. Camp there, or play a round of golf nearby and try one of their belly busting sandwiches from the snack bar. Tour the art galleries and studios where clay and paint are the passions of a gifted few.

Dine on brats to freshly caught Lake Michigan white fish – gourmet style or at one of the fish boils prepared throughout the peninsula. Try the cherry pie too, as Door County is known for its cherry trees.

Charter a boat and go deep water fishing for salmon, or stay near-shore to find small mouth bass, yellow perch, or walleye.

From Door County, you can fly to Washington Island and land on its grass airstrip (or take the ferry from the Top of the Thumb). They have a courtesy car for pilots. From there, you may want to jump across to Michigan's upper peninsula and land at Schoolcraft Airport at Manistique. Be

a "UPPER" (pronounced "you –per")! A short walk will take you to the casino where you can help support the local Indian nation.

CONTINUED ON PAGE 57

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(Маім Рното) Customer Cessna Caravans on display at Wipaire, Inc., Fleming Field, South

Winning Mix for this Midwestern Aviation Mecca

St. Paul, Minnesota. (Top Right) New avionics installed in a Cessna 208 Caravan featuring a Chelton EFIS and dual Garmin GNS 530 nav coms.

ipaire, Inc., located at Fleming Field, South St. Paul, Minnesota, has long been known for its quality design and manufacturing capabilities, and is going strong as the world's premier aircraft float manufacturer, designing and manufacturing floats for a variety of aircraft from Piper Cubs to Cessna Caravans and de Havilland Twin Otters.

((L/R) Sara Wiplinger, Charlie Wiplinger, Mike Wiplinger, Ben Wiplinger pictured in background, Bob Wiplinger, and Nancy Pone.





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(TOP) Wippy Boss Beaver.

(Lower) Boss 182.





Now nearing a half-century old, the company has expanded its horizons in recent years to bring that quality and reputation to another aviation sector, "aircraft care." The growing Minnesota company has long hosted its own painting, maintenance, avionics and interior facilities to accommodate manufacturing and product installations. Recently, their aircraft care division – referred to as "WipCaire" – was introduced, and includes full-service and custom specialties in refinishing, interiors, maintenance and avionics for all aircraft with and without floats!

Jason Erickson, maintenance division manager, says WipCaire's facility has over 41,000 square feet of floor space and is a Cessna single-engine and Caravan 208 service station. They offer a broad array of services including hot sections, boroscope and prebuy inspections, as well as product installations and annual inspections. The department caters to the Cessna Caravan market, offering landing gear inspections, a host of factory options and even a jig for major airframe repair.

The avionics department can repair existing equipment or complete a glass-panel makeover.

The interior and refinishing departments pride themselves on their ability to accommodate the most fanciful custom requests.

Offering these services under one roof has proved invaluable for minimizing ground time by enabling avionics or interior work to be done concurrently with service work.

Along with the coordination of aircraft care services, Wipaire has focused its efforts on the customer experience, making customer service a top priority. By training and dedicating experienced staff, Wipaire customer service personnel can answer customer inquiries, and process emergency float and aircraft parts orders 24 hours a day, seven days a week. The customer service staff is made up of five aviation professionals including A&Ps, CFIs, pilots, and float maintenance experts. Randy Juen, President of

Wipaire, says that he was very encouraged by the success of this department when he attended the Sun 'n Fun Fly-in in Florida this spring. "Several customers sought out our display just to tell us 'thank you' for the great service they received!" said Juen.

One of the fastest growing departments in recent years at Wipaire is the "engineering department," which includes research and development, as well as manufacturing engineering. Five years ago this same department was staffed by only three people, and now employs over 15 aerospace engineers, drafters, mechanical engineers and technical writers.

Wipaire's investment in research and development indicates their commitment to bringing cutting edge technology to product design and performance.

Current product developments include a 7000 model float for the new Ouest Kodiak aircraft, and a whole array of performance modifications for Wipaire's new "Boss 182." The Kodiak is a single-engine turbine aircraft manufactured in Sandpoint, Idaho and designed to handle bush and utility flying for humanitarian aid. Aircraft serial number three (#3) was delivered to Wipaire in May and at press time, the research and development staff had planned to have the floated prototype make an appearance at EAA Air Venture in Oshkosh, Wis., when they will begin officially taking orders for the new float.

Also under development is an array of performance modifications for Wipaire's new "Boss 182." The "souped-up" Skylane will include a high-displacement Lycoming engine with a custom engine mount, substantial gross weight increase and seaplane kit. Structural testing for the gross weight modifications is currently underway, but no numbers are currently being released.

Another example of Wipaire's ingenuity and design talent is the "Wippy Boss Beaver," which has saved several classic de Havilland aircraft from the scrap yard. The con-

version takes a MKI or MKII Beaver and re-builds it with wet wings for fuel, a 650 horsepower PT6 engine, and a 6100 pound gross weight. It was designed to be the ultimate floatplane, and there are about a dozen lucky pilots out there who get to call a Wippy Boss Beaver their own!

Wipaire's product development in recent years has reached beyond the recreational and utility market into a new frontier of fire fighting aircraft. By manufacturing floats with specially designed water scoops for the Air Tractor 802, they engineered a new breed of amphibious scooping air tanker called "Fire Boss." There are about 30 in operation in Canada and Europe, and one that has worked on a contract for the State of Minnesota for the past two springs.

The flurry of activity at Wipaire has helped the company achieve impressive growth over the past several years. There are now over 185 people employed at the South St. Paul and Inver Grove Heights facilities, compared to just 100 in 2001.

What does all this mean for this third-generation, family-run business? One look at the photos that accompany this article indicates one major outcome: success! Wipaire recently had 15 Cessna Caravans in their facilities the same week...all of which were receiving various maintenance work, product installation or aesthetic improvements. Eleven of those Caravans were shallow enough in the hangar amongst the myriad of other aircraft to lineup for a rare photo opportunity.

Dave Utsch, manager of the paint division, says that convenience, quality, and a comprehensive product mix are the recipe for Wipaire's success. Convenience provided by the ability to perform multiple services concurrently, thereby reducing coordination effort, AOG time, and ferrying on the part of the owner. Quality is brought about by small-company employees with a genuine passion for aviation. Just add a dash of corporate-sized 24/7 customer service from those same individuals, and that's a winning lineup.

Wipaire is a family owned and operated business that was founded on old fashioned ingenuity and entrepreneurialism by Ben Wiplinger in 1960, when he wrote a letter to Edo Corp inquiring about becoming a distributor. Edo turned him down, and as a result, Wipline Floats exist today.

Bob Wiplinger, Ben's son, has sustained that creative passion, bringing to fruition a wide product line of floats, skis, and performance-enhancing aircraft modifications. Bob, most widely known as "Wip," has been key to Wipaire's product development over the last 30 years, having acquired a degree in aeronautical engineering from the University of Minnesota.

That accomplishment was to be repeated by his son, Charlie Wiplinger. "Chuck" manages Wipaire's engineering department of 15 CAD technicians, and mechanical and aerospace engineers who do product development and improvement. Both Bob and Chuck are accomplished pilots with a variety of ratings and over 6,000 and 1,400 hours respectively.

Chuck's wife, Sara, has a college degree and soloed in August of 2006. She manages a sister company, Lake & Air, which provides seaplane supplies, flight training and services. Wip's daughter, Nancy (Pone), has an education in Business Administration and fills in wherever the company's needs are most urgent, which is currently in marketing. In the past she has worked with payroll and benefits, and facilitated aircraft leasing agreements. Mike Wiplinger, Bob's brother, has contributed over 25 years of assisting where needed in the office, and keeping everyone smiling with his social personality.

The feeling of "family" extends to all employees and customers at Wipaire, and everyone pitches in to get the job done, whatever that may be.

For additional information, refer to www.wipaire.com or call 866-277-1146, 24/7.

EPHRAIM GIBRALTAR AIRPORT FROM PAGE 53

The Friends of Ephraim Gibraltar Airport continue their efforts to make a visit to 3D2 a pleasant experience with information on their website:

http://www.friendsofephraimgibraltarairport.com

The Ephraim Gibraltar Airport can coordinate your ground transportation needs from bicycles to "mass transit" trolleys to the various attractions of the area. Rental cars are also available on site. For additional information, contact the Ephraim Gibraltar Airport at 920-854-9711.

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FLY-INS & AIR SHOWS



Field of Dreams Seeks To Entertain With Expanded Airshow Format

HINCKLEY, MINN. – There's no stopping Field of Dreams airport owner, Brian Weidendorf, when it comes to promoting his airport and giving thanks to his local community for supporting both the airport and a number of businesses he owns in the small east central rural Minnesota community of Hinckley. Weidendorf has hosted an annual fly-in and air show since he established the airport in September 2003.

For the June 22 air show, Weidendorf booked "Greg Koontz Airshows" and "The Alabama Boys," of Ashville, Alabama, which included Greg Koontz's solo Decathlon routine, a Flying Farmer routine in a J-3 Cub which Koontz





ave Wei





 $(TOP\ PHOTO)$ Greg Koontz performs the inverted ribbon cut.

(ВОТТОМ РНОТО) Travis Reynolds and Bob Dugger of "The Alabama Boys," Greg Koontz of Greg Koontz Airshows, Christine "CC"Gerner of CC Airshows, Bryan Jensen, and Brian Weidendorf and Matt Johnson of "Field of Dreams."

also flys, and a truck-top landing, also in the J-3 Cub. Also performing at the Hinckley Air Show was Christine "CC" Gerner of Minneapolis in her Extra 300.

Field of Dreams airport (04W) is open to the public, and the fixed base operation, Eagle Air, also owned by Weidendorf, has both 100LL and Jet A self-service fuel, and offers flight instruction, aircraft rental, hangar storage and charter service. The runway is 75 X 2,754 feet and paved with pilot-controlled lighting on 122.9.

For additional information call Matt Johnson, airport manager, at 320-384-6667 (www.fieldofdreamsairport.com).

The airport is conveniently located 1 mile north of Grand Casino Hinckley and its golf course (www.grandcasinomn.com).





(Top L/R) Joe and Cheryl Dooley, and Darrel Massman, performers. (Bottom) Floatplane at Harbor View Restaurant, Phillips, Wisconsin.

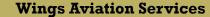
A Fly-In/Float-In & Air Show To Support AMVETS

PHILLIPS, WIS. – Aircraft that fly to a fly-in or air show seldom have their choice of landing on a paved runway or lake, but they do at the Price County Fly-In/Float-In & Air Show in the northwest Wisconsin community of Phillips (pop. 2,000). The airport is located across the highway from Long Lake and the Harbor View Restaurant & Bar seaplane base. This year's event was held July 5.

The featured air show performer was Darrel Massman of Waupaca, Wis., flying his Panzl unlimited aerobaticclass monoplane. The air boss for the show was air show performer, Joe Dooley of Hutchinson, Minn. Price County Airport Manager, Chris Hallstrand, produced the event. Approximately 50 airplanes on wheels and floats flew in. There were two air shows – one in the morning, and one in the afternoon. The show was free to the public, and the proceeds from the breakfast and lunch went to AMVETS Post 50.

The fly-in was held in conjunction with the Chain of Lakes Triathlon.

For information on Price County Airport and recreation in the lake country area, call 715-339-3701. Call ahead for the current price on self-service fuel.



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