



# WFC Pilot

Volume 2, Issue 3

March 2014

## Winter Meetings:

First Tuesday of the Month  
6 p.m.  
Room 138  
Fox Valley Tech College  
Aviation Campus  
3601 Oregon Street  
Oshkosh, Wisconsin.

## Next Meeting:

Tuesday, March 4

Details here →

## How Well Do You Know Your Airplane?

That's a great question. If N7770G is your primary airplane, and you didn't answer, "perfectly," then you won't want to miss our March meeting. Club President Tim Lemke will lead a discussion on important but perhaps forgotten or obscure details about N7770G. You're sure to come away with a new feeling of "closeness" to our favorite club airplane, and become a safer pilot as well. Please attend.

**A detailed post-wash inspection like this shows there's hardly anyone more qualified to present "How Well Do You Know Your Airplane" than Tim Lemke.**



## Flying Wisconsin

By Rose Dorcey

John and I are about to embark upon a trip to the [hopefully] dry, warm, sunny south. Today's Oshkosh forecast calls for rain and snow showers. I think we're leaving at the right time.

This trip reminds me of others we've taken in recent years. In 2011, we drove to Florida, stopping at several museums on the way there and back. It made for a fun, educational trip. Here's how it went...

Our first stop was Ft. Rucker, Alabama, to see the US Army Aviation Museum. The origins of Army aviation are well represented there, as are the Army's contributions to WWII, the Korean conflict, Vietnam, and Desert Storm. They even have a display featuring UAVs. [www.armyaviationmuseum.org](http://www.armyaviationmuseum.org)

Our next stop, the National Naval Aviation Museum in Pensacola, Florida, is my absolute favorite museum. The bright, welcoming atmosphere, from the moment we walked in, large

collection of military and civilian aircraft, innovative displays—and explicit display descriptions—make the visit a meaningful experience. Friendly staff and volunteers, along with optional lot tours and movies, only enhanced our visit. While we were there, the Blue Angels were practicing, so we took seats in the bleachers and enjoyed the show! An aviation fan's must see attraction. <http://www.navalaviationmuseum.org>

While we stayed in Pensacola, we made a day trip to the USAF Armament Museum at Eglin Air Force Base. It's a neat place to see military aircraft with their bombs and missiles in place. There's quite a display of weaponry there, from WWI rifles to today's high-tech missiles, and an SR-71 Blackbird parked outside. John particularly enjoyed seeing a B-52G with an AGM-28 Hound Dog missile alongside. His own USAF service had him working on this missile system, so it was a trip back in time for him. We learned a lot about aviation warfare here. You can too, at <http://www.afarmamentmuseum.com>.

On the way back north, we stopped at the Southern Museum of Flight in Birmingham, Alabama. Notable here was a diorama of Kimpo Air Force Base in South Korea, which portrays the defection of Lt. No Kum Sok (Kenneth Rowe), a North Korean Air Force pilot and what transpired after his defection. An F-86 Sabre and Mig-15 complete the story. <http://www.southernmuseumofflight.org>

One more stop in Tullahoma, Tennessee, the Beechcraft Heritage Museum. The crisp facility and collection of aircraft are outstanding. Seeing the lineage of Beechcraft airplanes gave me a greater appreciation for the company's history and its founders. I think you would enjoy it too. <http://www.beechcraftheritagemuseum.org>

I'm limited by space, so it's hard to describe each one. However, each was meaningful and fascinating in its own unique way. All are worth a visit, and you can't miss by trying to see them all.

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## TIM TALKS



Club Pres Tim Lemke

### Send your Ideas!

Need a flying question answered by Tim, Keith, or John? Do you have story ideas? Want to write a story or share a favorite flying photo? Your ideas, questions, photos, and comments are welcome. Send to [skyword@new.rr.com](mailto:skyword@new.rr.com). Thanks!

Another night flight photo showing Oshkosh and the Lake Butte des Morts bridge.



Photos by Rose Dorcey

## Flying at Night

In last month's issue of the WFC newsletter, Rose included a night time photo of the city of Oshkosh. The photo was absolutely spectacular for the way it captured the beauty and awe of flying after dark. I was again reminded of the joy of night flight while on a training flight with Carrie Forster recently. This was Carrie's first introduction to flight after dark. We flew from Appleton to Clintonville for a few takeoffs and landings, and then returned to Appleton for a couple more trips around the traffic pattern.

Although there was very little light available from the moon and stars that evening, the small amount of available light reflected off the snow-covered ground to make it relatively easy to distinguish features of the terrain below us. If you haven't conducted a night flight recently, a few reminders from the FAR's might be helpful, and I'll pass along with a few other observations from my own experience.

- "Night" is defined as the time between evening civil twilight and morning civil twilight, as published in the American Air Almanac, converted to local time. In the vicinity of Oshkosh, evening civil twilight occurs about 30 minutes

after sunset, and morning civil twilight occurs about 30 minutes before sunrise. For example, sunset today (February 17) in Oshkosh is at 5:25 p.m. and sunrise is at 6:51 a.m. Evening civil twilight is at 5:55 p.m., and morning civil twilight is at 6:22 a.m. For the purpose of logging night flight, you can log only that time between evening civil twilight and morning civil twilight.

- In order to act as the pilot-in-command of a flight carrying passengers at night, you must have made, within the previous 90 days, at least three takeoffs and landings during that period from one hour after sunset until one hour before sunrise. The landings must be made to a full stop; touch & gos don't count. FAR 61.57(b)
- The aircraft position lights (what we often call the nav lights) must be illuminated from sunset to sunrise. I recommend turning on the nav lights well before sunset, or anytime that the lights would be helpful in increasing your visibility to other aircraft. FAR 91.209
- When flying at night, you will need to rely on the flight instruments more heavily

than you would during a daytime flight, especially if there are few or no lights on the ground in the area that you're flying over. It can be very much like flying in instrument meteorological conditions. Imagine taking off on Runway 9 at Oshkosh, on a very dark night, toward the dark expanse of Lake Winnebago. The

same thing can happen when you're flying over the forests of northern Wisconsin with a minimum of ground-based lighting.

- Night flying can be disorienting. Navigation by pilotage alone is more challenging at night because of the difficulty of maintaining your north-south-east-west orientation, even on the ground when taxiing.
- Aircraft traffic is usually easier to spot at night, especially if the potentially conflicting traffic is equipped with strobe lights. However, at night I've found it more difficult to estimate how far away the traffic is.
- There is often little or no turbulence at night because the sun is no longer able to create the uneven heating of the earth's surface, which contributes to daytime turbulence.
- Locating airports and runways at night can be more difficult than during daylight hours because the lights can blend in with the surrounding lights of the city. Remind me to tell you about a flight I conducted several years ago to Milwaukee's Timmerman airport with an arrival about 30 minutes after sunset. The gist of the story: I almost landed at the wrong airport.
- It's easy to get lost on an airport at night, even at an airport you're familiar with during the daytime. I speak from experience. I've been lost at both Milwaukee's Mitchell and Green Bay's Austin Straubel Airport at night. Having an airport taxi diagram available will help to avoid this, and don't hesitate to ask the controller for a progressive taxi.

In the next issue of *WFC Pilot*, I'll have more tips for you regarding night flight.

## February Meeting Summary



Our February meeting was well attended with 15 members present: **Curt Carter, John Oberg, Gary Zahn, Eric Abraham, Rose Dorcey, Brendan Stormo, Brian Rupnow, Gary Geisler, John Dorcey, Frank Juedes, Al Follendorf, Carrie Forster, Russell Brodtke, Tim Turner, and Doug Koehler.** Curt did a great job of running the meeting, standing in for Club President Tim Lemke.

Discussion centered around a potential WFC-sponsored ground school. Several members expressed interest in a private pilot ground school as a refresher, some knew student pilots who may be interested, and others pointed out its value as a club recruitment effort. Some members may be interested in an instrument ground school as well.

Members were reminded that Orion Flight Service trucks will fuel N7770G at our hangar after a flight. This is particularly useful on cold, windy days, and a nice convenience throughout the year.

After the business meeting, **Dr. Tom Voelker**, an Aviation Medical Examiner from Wisconsin Rapids, gave a presentation entitled, "Your Airman Medical Certificate." His talk covered many medical matters as related to obtaining or maintaining our medicals. Topics included dehydration, medications, hypoxia, and the latest on the FAA's sleep apnea policy, among others.

Voelker also shared some personal experiences as a pilot, including a trip to FAA Headquarters in Oklahoma City, Oklahoma, to attend the Basic Survival Training course. Voelker said it was a valuable



course and he recommended any pilot to attend if able. Dr. Voelker also reminded us of pilot preflight method: I'MSAFE  
 I - illness  
 M - medication  
 S - stress  
 A - alcohol  
 F - fatigue  
 E - eating (some say the E stands for emotion, but do not underplay the importance of fitness and nutrition when fly-

ing, particularly on long flights in extreme hot or cold, in addition to your emotions.)

Several members asked Dr. Voelker questions during and after his talk, and commented that it was an excellent, informative presentation. Dr. Voelker is an instrument rated commercial pilot and aircraft owner. He flew to Oshkosh in N6442P, his Piper Comanche 250 (above) for the event.

## MEMBERS *In Action*

### WFC Pilot Photo Contest Number 2 Don't forget to snap and enter

Our second WFC Pilot Photo Contest is underway! As you're flying in the next several weeks, start snapping some photos. This contest has a "Winter Flights" theme, and your photos can be taken while in the air or on the ground.

We're looking for any scenes that represent flying in winter. Here are some ideas:

- Airport scenes
- Aerial city views
- Snow covered outline of lakes
- Airport workers in winter
- Ski hills
- Airport equipment
- Snowy sunsets
- A winter flying "selfie"

Whatever you see, get a photo of it, and submit it to enter. We've received a few entries so far; we're hoping to get one from each member who flies between now and March 31. Be sure to take your camera along on your next flight! Good luck.

**Contest Theme:** Winter Flights  
**Entry deadline:** March 31

**Details:** Photos taken between January 1 and March 31, 2014 are preferred, but will accept photos taken previously.

- Please include a brief description of your photo, including when and where it was taken, photographer's name, and any other details to describe the photo.



- Prizes will be awarded! (We are looking for prize sponsors so we can offer nice prizes.)
- No more than two submissions per person. Winners chosen by popular vote of Winnebago Flying Club members.
- All entries will be published in the April issue of WFC Pilot.
- Send your photos to Rose at [skyword@new.rr.com](mailto:skyword@new.rr.com).

### WFC Pilot Photo Contest Number 2 Contest Entry Number 1

WFC Member **Gary Geisler** sent this beautiful photo from a recent flight over Central Wisconsin. It's the first entry in our second photo contest, and we hope to receive many more. Deadline March 31. See details above.



## Eric Abraham, B-17 Commander

WFC Member **Brendan Stormo** sent this photo of our maintenance officer **Eric Abraham** in the cockpit of EAA's B-17, *Aluminum Overcast*. The Fox Valley chapter of IMC Clubs held its February meeting at EAA and arranged a pre-meeting tour of the plane. Brendan reported that with only about 10 people present for the tour, they were able to get a lot of time viewing the inside of the plane. Brendan

added, "I snapped this shot of Eric up in the cockpit just before he fired up the engines and ran it through the hangar doors."

Okay, Brendan was just kidding, but it was a wonderful opportunity to view a historic aircraft, thanks to IMC Clubs and EAA. Read more about IMC Clubs, their meetings and mission, on the next page.

Thanks for sending the photo, Brendan.



## Photo Contest Entry Number 2

WFC Member **Curt Carter** sent this photo, taken on February 15, while he and his wife, Sue, were flying to the Baraboo/Wisconsin Dells Airport (KDLL). They took the shuttle from the airport to Ho Chunk Casino and had lunch there before returning to Oshkosh. Nice photo, Curt. Good luck!



## Deice Truck Joins Wittman's War on Winter

By Scott Spangler

Wittman Regional Airport recently took delivery of a new (to the airport) dedicated "deice" truck that sprays CryoTech E36 fluid on its operational pavement. Designed specifically for its winter airport operations mission, the truck quickly applies the optimal amount of the expensive deicer, said Operations Director Chris Hallstrand, which saves the county time and money.

Wittman bought the truck, a 1991 Ford F-800 chassis with a 1996 Tyler spray system, which includes a 2,000-gallon tank and 50-foot wide boom, from the Dane County Airport, which declared it surplus when it got a new, bigger deice truck. With 3,824 miles and 839 hours on it, the new truck will serve Wittman for years to come. It replaces the ag unit, a tractor that pulls a 500-gallon spray rig with a 30-foot boom, that the airport has leased from a local farmer.

The ag unit worked, Hallstrand continued, but its boom has a fixed height that's designed for crops, so the unit's speed and the winter wind disperses some of the expensive E36 fluid before it reaches the pavement. The boom on Wittman's new truck is fully adjustable from the cab, and a computer factors in its speed to adjust all the variables, including spray pressure, to apply the optimal amount of fluid.

This system allows the truck to apply the fluid at faster speeds, and with its 50-foot boom, it can cover Wittman's 150-foot-wide runways in three passes rather than the five or six needed by the ag unit.

Salt is not a weapon in any airport's war on winter because as any car owner knows, it eats metal. Aluminum airplanes are even more vulnerable to its corrosive nature. E36 is a potassium acetate-based fluid approved for aviation use because it harms neither the pavement or the aircraft that uses it.

As explained in Wittman Regional Airport vs. Ice, the Road-Watch Pavement & Air Temperature Sensor mounted in several airport vehicles takes a lot of guesswork out of the decision to spray. The new spray truck narrows that decision with its speed, giving the staff more time to see what the weather will do and leaving enough time to treat the operational pavement before the ice starts to form.



Story and photo courtesy of Wittman Regional Airport (KOSH). Photo by Scott Spangler.

## Me and My Magnetos

By Keith Myers

I have always been fascinated by the aircraft magneto. Yeah, I know, get a life! The magneto, in its simplest form, is nothing more than a coil of wire and a magnet. Move the magnet through the coil of wire or the coil of wire through the magnetic field and presto, change-o, we have electricity!

A guy by the name of Faraday discovered this principle in 1831. Hippolyte Pixii built a machine in 1832 using a rotating permanent magnet to induce voltage in two fixed coils. And, here we are, 180 years later, still using that principle to power the spark plugs in the aircraft we fly.

What I find interesting about magnetos is that once they are created they can't be turned off or "killed." Kind of like zombies, I guess. As long as the coil of wire can be turned in the magnetic field, we generate electrical current. Some of you are thinking; but if I turn the magneto switch to "off" have I not turned the magneto off? No, but hold that thought.

Magnetos are used in airplanes to provide the electric source for the spark plugs, which fire and cause the fuel in the engine to ignite. Each of the engine cylinders has two spark plugs, each powered by a different magneto. So we have two magnetos.

The very first cars used magnetos for their ignition systems as well, but they were soon abandoned in favor of battery/generator sources of electrical power. This in turn has evolved into battery/alternator and now to digital electronic ignition systems. Airplanes still use magnetos. Why?

The most common answer is reliability. I have a hard time with that argument. If they are so reliable, why do I need to carry two of them? If they are so reliable, why do I have to overhaul those magnetos every 500 hours? If they are so reliable, why do I have to check them every time I go flying?

I once owned a homebuilt Glasair with a hybrid electrical ignition system. There was the conventional magneto powering one set of spark plugs and a digital electronic module providing power to the other set of spark plugs. When I did the magneto check by turning off the electronic ignition, I would get the typical drop in RPMs when running on the magneto only. When I ran on the digital system only there was no drop in RPMs. It compensated for the loss of the magneto.



Keith Myers, Pilot Examiner

So why have we not moved into the 21st century and gone to electronic systems?

The answer is probably simple, like, *if it isn't broken, don't fix it*. Or, if it was good enough for my grandfather it is good enough for me. Or, perhaps it is a permanent-magneto-industry conspiracy!

So why is putting the magneto switch in the "off" position not always a guarantee that the magneto is off? Turning the propeller turns the engine, which turns the magnetos, which makes electricity, every day, all of the time. Each magneto has a small wire called the P-lead that diverts this power away from its intent to power the spark plugs to the aircraft structure or to "ground." If that wire is disconnected (perhaps by omission or failure) the power generated by moving the propeller goes to the spark plugs. That is why, boys and girls, we are very, very careful about moving the airplane propeller even when we are sure the magneto switch is in the off position.



## Oshkosh; Green Bay form IMC Clubs

Thirty-one men and women recently attended the inaugural meeting of the Fox Valley Chapter of IMC Clubs. A planning committee was formed, and settled on a regular meeting date of the third Tuesday of the month at 7 p.m. at the EAA Aviation Center in Oshkosh. Most meetings will be preceded by an optional "bonus" activity an hour before, such as the B-17 tour, meetings with ATC staff, or safety and operations presentations, according to Andy Miller, Oshkosh chapter president.

Safe instrument flying is a matter of mitigating risk, personal minimums, and standard operating procedures. If you have and use sound judgment, establish personal minimums and good procedures, you can enjoy a long and successful career of instrument flying. However, the training program you employ can make the difference between success and failure in your instrument flying endeavors. That's what IMC Clubs are all about.

Andy Miller, IMC Club's Fox Valley Chapter Leader is from Appleton, Wisconsin, where he hangars his Cessna 182 and helps staff the Teaching & Learning Center at Fox Valley Technical College. A presenter and FIRC Instructor for the Air Safety Institute, he holds CFI-A, CFI-I, IGI, and AGI certificates, is a Redbird Simulator Certified Instructor, and has done graduate work on Flight Instruction with Embry-Riddle Aeronautical University. Andy serves as a FAA Team Lead Representative in the Great Lakes Region.

Inspired by the success of the Fox Valley Chapter's first meeting, a Green Bay Chapter is being formed, with tentative plans to meet on the second Wednesday of each month at Jet Air in Green Bay. Their inaugural meeting is scheduled for Wednesday, April 9; contact Karen Kalishek at [kkalishek@yahoo.com](mailto:kkalishek@yahoo.com) for more information. Wisconsin's first IMC Club Chapter formed in Madison.

## Winnebago Flying Club's

# We're Not Sure What the Heck

## Season This Is Party

Saturday, March 22, 2014

Mahoney's Restaurant & Bar

30 Wisconsin Street - Oshkosh

Join us for a delicious buffet dinner of  
**Beef Tips, Roasted Chicken, Salad, Veggie,  
 Mashed Potatoes, Dessert, Coffee, Tea & Milk.**  
 (Soda and other drinks separate)  
**Just \$18 per person (includes gratuity)**

### Icebreaker/Get to Know You Game

"Two Truths and a Lie"

Plan to share two facts and one "untruth" about yourself;  
 others guess which statement is false.

### Name that Wisconsin Airport Game

We'll show photos of Wisconsin airports; person who correctly identifies the most airports wins.

**Prizes will be awarded!**

If you've been a WFC Member for at least three years, you know that we typically hold a *Winter* party. This year, we've pushed it to late March, and with the extreme winter we've had this year, it's hard to know if we can expect winter- or spring-like weather. Either way, we're ready to celebrate. We hope you can join us!

## RSVP - *We're Not Sure What the Heck Season This Is Party*

When: Saturday evening, March 22, 2013

Time: 6 p.m.

Cost: \$18 per person (family, friends, and potential members are welcome!)

Where: Mahoney's Restaurant, 30 Wisconsin Street, Oshkosh.

RSVP: By March 20 to Brendan Stormo  
*brendanstormo@gmail.com* or call 920-624-2273

Payment: **Preferred Method:** Send a check, made out to Winnebago Flying Club, by March 20 to: Sara Strands · W7892 Thomaswood Trail · Fond du Lac, WI 54937  
 Or, bring a check, made out to Winnebago Flying Club, to the event. **Please RSVP!**



Located at  
Wittman Regional Airport  
(KOSH)  
Oshkosh, Wisconsin

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WFC Pilot is produced by WFC  
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or call 920-385-1483.

*If we love to fly so  
much, how come  
we're always in  
such a hurry to  
get there?*

— Louie Manyak

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## The Fox Valley's Friendliest Flying Club!

Our club airplane, N7770G, is a 1971 Cessna 172. This is a 150 hp, four-seat aircraft certified for flight under IFR, with VOR and GPS navigation radios. Dues are \$30 per month and the airplane rents for \$85\* per Hobbs hour, wet. Aircraft scheduling is done via internet or telephone through [www.AircraftClubs.com](http://www.AircraftClubs.com). Flight instruction is available from any of our several club instructors.

Spring, summer, and fall monthly meetings are held on the first Tuesday of each month at 6 p.m. in the north T-hangars at Hangar C-5. Enter through the automatic gate located on Knapp Street, just east of the Oshkosh Post Office. Winter meetings are held at 6 p.m. on the first Tuesday of the month, typically at Fox Valley Technical College-Spanbauer Aviation Campus, located at 3601 Oregon Street in Oshkosh.

We have openings! To make application to the Winnebago Flying Club, simply fill out our application (available online at [www.WinnebagoFlyingClub.com](http://www.WinnebagoFlyingClub.com)) and send it, along with the initial, non-refundable membership fee of \$150, to the address noted.

Visit our website or email [info@winnebagoflyingclub.com](mailto:info@winnebagoflyingclub.com) to learn more.

\*Due to market conditions and other circumstances, see our website for current rate.

## Aviation Events

### Saturday, March 15, 2014 Wisconsin Light 21st Annual Aviation Safety Seminar

Registration 8:00am—Speakers 9am-4pm  
EAA Founders Wing, Oshkosh. Seminar topics include "Weather to Fly, Getting the Proper Information for Your Flight," and "Situational Awareness and You," among others. WFC Member John Dorcey serves as emcee for this event, which qualifies for the FAA "Wings" program. The seminar has no admittance charge via the support of a raffle. Please plan on raffle participation. Lunch will be available. Contact: Carl Greene 715-927-8585. Visit <http://www.AV8SAFE.org> for more information.



### Saturday, April 12, 2014 EAA Chapter 252's S.J. Wittman Birthday Fly-in Breakfast

7:30 a.m. - 11:00 a.m. Wittman Regional Airport Terminal (KOSH) Oshkosh.

**May 5-7, 2014 - the 59th Annual Wisconsin Aviation Conference** at The Patriot Center, Rothschild. The conference kicks off Monday, May 5th with two networking events during the day including golf and sporting clays. Tuesday morning the conference program begins with topics designed to be of interest everyone in the aviation community; tentatively scheduled topics include: industry updates by the FAA and Wisconsin Bureau of Aeronautics, Wildlife Hazard Management, Strategic Planning, the Wisconsin Aerospace Consortium, NEXTGEN, General Aviation Hangar Construction Trends, and more. Visit [www.wiama.org](http://www.wiama.org) for more information.



## Photo Contest Entry No. 3

WFC Member Curt Carter sent not one, not two, but three entries for our Winter Flying WFC Pilot Photo Contest. Here's a nice shot of snowy Wittman Regional Airport. Members: You've seen some of the competition, and now the challenge is on—please send your winter flying photos to be eligible for judging and prizes. More info page 4.