

CORBEN COURIER

Chapter Meeting

Wednesday March 18 at

Fitchburg Public Library



March Meeting Details - NOTE DATE AND LOCATION CHANGE

Our March meeting will be located at the Fitchburg Public Library, located at 5530 Lacy Rd. in Fitchburg and it is scheduled for Wednesday, March 18 at 7:00 pm. Please note the date change from our standard “third Thursday of the month” timing. In addition to our regular meeting topics Mr. Brian Burke from Sonex Aircraft will be our featured presenter. Brian will provide us with an overview of the Sonex Aircraft, its aircraft, construction techniques, build process, customer programs, etc. We are looking forward to a fun, informative evening together. Treats will be provided. See you there!

- Rob Tweed

Aircraft Engines: Tried and True vs. New and Exciting

Last year I found myself rummaging around a few storage buildings in Middleton that belonged to my friend, Emmett, the individual who had recently sold me a portable building for our property in Black Earth. Emmett is a collector of all sorts of interesting stuff. Looking for a vintage Corvair or just about any part that found themselves in these fine machines that were bane of Ralph Nader’s existence? Emmett is your man.

So, there I was climbing around all these Corvair parts and what do I find? To my surprise, lying there on the dirt floor was a Lycoming O-290-G engine. Who knows how it got there or how long it had been there minding its own business among its Corvair buddies. My interest in this Lycoming “barn find” was its cylinders. I have a Lycoming O-290-D-2 powering the Lancair and it is nearly impossible to find replacement cylinders for that engine. Perhaps, I thought, this



G model had cylinders that could serve as back up one day should the engine in the Lancair develop cylinder cracks. It was missing some parts but I was able to turn it over. I decided to give this long forgotten Lycoming a new home.

As I stared at my new prize now on the floor in the hanger I found myself thinking, “How have we come to this?” More specifically, how is it that our airplanes can have such stunning electronic wizardry in the panel and such sleek, state-of-the-art aerodynamic structures only to

be powered by an engine that once saw duty running a generator during WWII? We now have autos with turbocharged and intercooled engines that can vary exhaust valve timing by using high pressure oil generated from tiny pumps running off the intake cam and then using this oil to actuate the exhaust valves through electronic solenoid valves. Other high performance auto engines with 650 horsepower can shut half of their cylinders down to enhance fuel economy. Yet other engines are capable of running on a wide variety of fuels with vastly different octane ratings. And here we are in 2015 flying airplanes with engines that have barely evolved from WWII.

Some enterprising homebuilders share this frustration and have decided to enjoy the benefits of modern automotive technology in their flying creations. Their experimental aircraft sport innovative adaptations of auto engines from Honda, Subaru, Mazda, Chevrolet, Ford, etc. Despite the impressive performance figures for horsepower and torque, some of these modified aircraft have tested the nerves of more than a few capable test pilots.

Recently I spent time with Don Goetz, the test pilot who flew the initial test flights on the Lancair. Don has flown over 650 first flights and has successfully performed 25 dead stick landings, earning him the nickname “Dead Stick Don”. One such emergency landing, Don recalls, occurred when he was flying a Lancair IV. The Canadian builder of this aircraft substituted a turbocharged Subaru engine in place of the huge Continental aircraft engine that normally resides inside the cowling.



“What is this?” Don asked the builder. “It’s a Subaru”, responded the builder. “It will never work!” came Don’s response. “It’s got better than 350 horsepower”, the proud builder shouted back. Don reluctantly agreed to do the test flight. With the Subaru screaming its little lungs out Don barely made it into the air. After gaining some altitude Don carefully executed a couple of left turns and brought his Screaming Mimi onto the downwind leg. Next there was a sudden large BANG and then total silence. Don deftly lowered the nose and gingerly brought the stricken Lancair in for another successful dead stick landing. “Now put a real aircraft engine in this thing” Don said to the bewildered builder looking at the smoke billowing out of his cowling.

From this experience and other similar outcomes that Don and other test pilots have endured one can conclude that auto engines, with all of their exciting new technologies, can be a risky proposition in aircraft applications. Going forward, progress will be made on this front and I believe we will see new generations of immensely capable aircraft engines incorporating all the latest technologies. For now I’ll continue to enjoy the reliable but boring cousin of a WWII ground power unit as my thrust generator up front.

It looks like spring has finally sprung...or nearly so! Enjoy the warmer weather and fly safe!

- Rob Tweed

2014 Heavy Bombers on Hulu

National "Savvy Stews" TV episode was just uploaded for viewing. I recently received the link from Judy Frankel of the Madison Visitors Bureau. Part of their coverage included 'Heavy Bombers' 2014 which starts at 13:50 minutes in. The Madison episode was recently uploaded to Hulu at <http://www.hulu.com/watch/752767#i0,p2,d0>

- Pete Buffington

Pilot Error

Pilot Error, Dewey Decimal Production's latest film, is showing at the Marcus Ridge Theater in New Berlin on Monday, March 30th at 4 and 7PM and at Marcus Point Cinema in Madison on Wednesday, April 1st at the same times. There will be a “talk back” after each showing with an actor from the film, as well as possibly an airline pilot.

The film has strong ties to Wisconsin; most of the movie was shot in Milwaukee and features General Mitchell Airport. The film also has a lot of local celebrities. The composer for the film

score attended Lawrence University in Appleton. Richard Riehle of Menominee Falls is in the film, as well as Deborah Staples who is currently in APT's Amish Project production in Milwaukee. The film also addresses aviation industry standards and pilot procedures.

- Diane Ballweg

Backcountry Flying Presentation

The backcountry flying presentation had a great turnout. We met at Morey Field in Jeff Russell and Bill Gillen's hangar. About 50 people attended. We had members from both EAA Chapters 1389 and 93 attend.

- Jeff Plantz



Jeff Russell's Piper Super Cub



Host and presenter Jeff Russell



Some of the attendees



Rob Tweed addresses chapter members



Jeff Plantz and Don Ripp



Super Cub

- Skot Weidemann Photos

Chapter 93



Chapter 93 members at the December 2014 meeting, Blackhawk Airfield clubhouse

- Jonie Fobes Photo

A Few Thoughts on Landings

Tricycle gear planes shouldn't make three-point landings, but are frequently seen doing so. They have flaps to reduce the stall/landing speed, but if you aren't making full stall landings, you aren't taking full advantage of the flaps. To avoid bouncing, tailwheel planes usually make full stall, three-point landings.

When a target shooter fires at a target, he/she doesn't know just when the gun will shoot. Whenever the sight is on the bull's-eye, he slowly squeezes the trigger. When the sight drifts off the bull's-eye he stops squeezing, and when it again swings back on the bull's-eye he continues squeezing until the gun fires.

Making a good landing is something like shooting in that you don't know just when the plane will stall and touch down. How about trying my fool-proof method of landing (unless, of course, this is already your S.O.P)?

1. Flare, or round out, or decrease your rate of descent (or whatever you wish to call it) and ease down to about three or four feet above the runway.
2. Now, just hold that height until the stick/wheel is all the way back. Like the target shooter, if the plane balloons up a bit, stop pulling back until it again settles closer to the runway, then hold it off as long as

you can. When the stick/wheel is all the way back, you'll immediately touch down at a speed which gives the shortest ground roll and which won't overstress the nose wheel support structure.

3. As the stick/wheel is being brought back you should continuously be making corrections to prevent drift and to keep the plane aligned with the runway centerline.
4. Following touch down, tail-dragger pilots must keep the stick/wheel hard back and roll out in a straight line until slowed way down (to prevent bounces and ground loops).

Outside of ground looping my Pietenpol because I forgot Item 4, the above has worked in an SNJ, TBM, F6F, AM-1, FH-1, Cub, Luscombe, Tri-Pacer, Chief, Champ, Stinson 10A, Cessna 120, 150, 172, and a couple more. A Cessna 170 with crosswind gear and Ercoupes were landed in a crab, while F4-U's made wheel landings on concrete (to maintain better rudder control) and full stall landings on moving runways.

The above procedure applies to most of the planes that we in EAA Chapter 93 fly or will fly. I hope it works well for you.

- Bill Rewey

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Calendar

March 18 – Chapter Meeting at the
Fitchburg Library

May 16 – Young Eagles Event with Chapter
1389 at Morey Field, Middleton

July 17-19 – Heavy Bombers Weekend at
Dane County Regional Airport, Madison

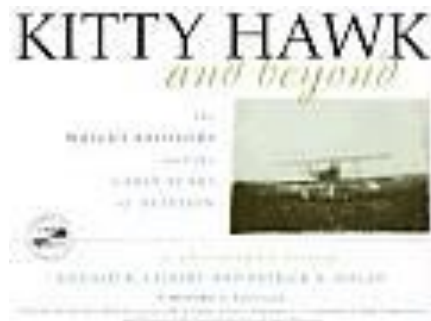
July 20-26 – EAA AirVenture Oshkosh at
Wittman Regional Airport, Oshkosh

August 8 – Young Eagles Event with
Chapter 1389 at Morey Field, Middleton

October 3 – Young Eagles Event with
Chapter 1389 at Morey Field, Middleton

- Al Kurth

Book Review



“Kitty Hawk and Beyond” by Ronald R. Geibert and Patrick B. Nolan, 1990, Wright State University Press, Dayton, Ohio, 170 p. softbound, glossy.

This is a photographic history, with most pages consisting of a photograph, and its explanation. It was written to celebrate the 100th anniversary of that first flight. Most of the photos are from the Wright brothers’ personal collection.

The photos start with family photos when Wilbur and Orville were children and continue beyond Orville's death to airmail stamps issued on December 17, 1978 commemorating the first flight. It is a story

most of us have read about many times, but it is better told photographically than in print, and was very interesting to view.

- *Fred Leidel*

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