



Issue
February 2009
Feb. 1, 2009

Oshkosh – Sport Aviation Capitol of the World Oshkosh – Sport Aviation Capitol of the World Oshkosh – Sport Aviation Capitol of the World Oshkosh – Sport

Next Chapter 252 Meeting

Because of the Chapter Banquet there will be **NO** regular Thursday meeting for the month of February.

The next regular meeting will be **March 12th**

2009 Dues are payable. Send \$20.00 to: Janet Davidson 3218 Bellfield Rd Oshkosh, WI 54904

Dues are payable as of Jan. 1st & must be received before March 31st (to avoid being dropped from the Chapter membership).

- Celebration of Flight - EAA Chapter 252 Banquet

Don't forget that Saturday February 7th is our annual Chapter 252 banquet.

Where - EAA Eagle Hangar

When - February 7th

6:00 PM - Cocktails (cash bar)

7:00 PM – LaSures Legendary Buffet

If you are planning to attend you should have already had your money submitted. The due date was **January 26, 2009**. The money and names should have been submitted to:

Charlie Becker, Treasurer, Chapter 252

3965 Sharratt Dr., Oshkosh, WI 54901

Phone (920) 426-1854 or

eaapilot@sbcglobal.net

Forgot to send your money in? Check with Charlie to see if he can still fit you in.

As mentioned in last months newsletter, Jim Koepnick his the featured speaker for the eveing. Koepnick's presentation will allow us to see the result of his work. It will also allow us to learn about the "behind the lens" effort and planning that goes into making some of his fantastic shots.

Many of us enjoy taking pictures, and may even consider ourselves amateur photographers. This will be a good opportunity to learn from one of the best.

The banquet planning committee has reported that at last count 74 people had signed up and more were expected, this promises to be a significant increase over last year's head count. They have also reported having a good number of interesting items for the silent raffle, and a good selection of door prizes will be available. It also sounds like they will be testing our aviation knowledge a bit.



Annual Community Banquet

- Steve Wittman Fly-In - Chapter 252 April Event

Our Chapter's next project for this year is to host a fly-in on April 4th to celebrate Steve Wittman's 105th birthday.

The Chapter officers have started some of the initial planning, but are asking that **any members who would like to participate in planning or working at the event to please step forward**. With some teamwork and planning we can make this a memorable event.

It's a Pancake breakfast, planned to be held in the Airport Terminal building. So far, it's being billed as a: pancake breakfast fly-in; car show, R/C demos, Young Eagle rides; special appearance by Miss Oshkosh. The Chapter is hoping to have several examples of Tailwinds fly in for the event. Any other suggestions?

A real aviation pioneer, Wittman was an active participant in aviation's golden years. It's especially fitting that our Chapter should hold an event like this to help the community remember the part he played in local history, as well as the aviation related achievements that we remember him for.

Sylvester Joseph Wittman (April 5, 1904 - April 27, 1995) received his pilot's license in 1924 (signed by Orville Wright) and built his first aircraft later that same year.

Starting in 1925 he operated his own flying service. He also became a demonstration and test pilot for the Pheasant Aircraft Company (which had moved to Fond du lac in 1930), and the Dayton Aircraft Company.

Wittman was active in air racing through most of his aviation career. Starting with the Thompson Trophy Races of the 30's and still active into the 1980's as he competed in the Lowers, Baker, Faulk 500 compition (an efficiency air race that was conducted out of Fond du Lac airport by Nick Jones).

His aviation history is extensive. Contact the newsletter editor if you have information you would like to share with others. We'll cover some of his local history in the next newsletter.

2009 Chapter Calendar and Wittman Airport Events

February 7th

Chapter 252, Oshkosh Celebration of Flight Banquet, EAA Eagle Hangar.

March 12th

Chapter 252 meeting
Sonex

April 4th

Steve Wittman Birthday,
Chapter 252 fly-in

April 25th

Fox Valley Tech airport campus
Fly-in breakfast

May 14th

Chapter 252 meeting
The Airplane Factory

June 11th

Chapter 252 meeting
Pioneer Airport

September 10th

Corn roast/brat fry. Munsils
Airstrip, ELO

September 10th

Corn roast and pot luck at ELO
International, 6:00 PM

September 12th

EAA Chapter 252 fly-in breakfast

October 10th

Chili bash, Wayne Daniels (7th
Heaven) hangar

For Wisconsin aviation events check out the calendars at:

<http://www.eaa.org/calendar/>

<http://www.dot.wisconsin.gov/travel/air/fly-ins.htm>

2009 Fly-In Season Begins

The Pioneer Airport ski fly-in pretty much kicked off the local fly-in season.

There will be a couple more on Feb 7th. EAA Chapter 766 will host a pancake breakfast at Sheboygan County Airport from 9am-11am; and EAA Ultralight Chapter 41 will be hosting their Lake Winnebago Fly-In and Chicken Booyah on the east shore, across from Oshkosh.

On Feb 28th, Wayne Poppy and the guys up at Northport (west of New London) will be hosting a ski fly-in and drive in, with chili served to warm up with.

Check out these events, and more, at the aviation calendar addresses shown above.

Chapter Shop Notes:

Weld Techniques & Structural Failures

John Weber's presentation on welding methods and safety provided a good segue into a question received about welding technique and the risk of weldment failure.

The question is: there are a number of homebuilding or hotrod oriented websites, blogs, etc. that touch on the topic (read controversy) of MIG or TIG or torch welding of 4130 steel. Most often it's whether or not a TIG weld joint should be pre-heated or post-heated, and why. So – the question is - has there ever been an actual documented failure of a welded assembly caused by not allowing a weld to cool slowly or by not post heating. This is a fair question.

For the answer I'll reference NTSB Field Accident Report CHI 90-F-A117.

A few years ago there were a number of documented cases of fatigue cracks forming near the welds of the wing attach fitting, on a particular aircraft type. A fatal accident occurred due to the complete failure of one of the fittings, with the end result that the airplane crashed, burying itself 3 to 5 feet deep in a swamp.

A metallurgical lab examined the fractured fitting. Their analysis revealed hardened zones in the 4130 material immediately adjacent to the weld fusion zones. These hardened areas were considerably harder than either the surrounding base metal or the weld fusion zone.

The conclusion of the NTSB investigation was that cracking in the fitting was caused by fatigue, initiated by the stress concentration of the high hardness region. The Safety Board reported the difference in hardness was caused by improper welding technique involving inadequate weld cooling control. The Board issued a Safety Recommendation that the manufacturer revise his welding procedure. They noted that preheating and post heating of the welded assembly are typical methods used to control the cooling rate.

The root of the problem is that 4130 is a heat treatable alloy that can achieve high strength (and hardness). When typically used in general aircraft structures, it is used in either the "normalized" or "annealed" condition, or somewhere in between (in the case of most welded assemblies). We like the normalized condition because it provides slightly more strength than the annealed condition, but is still far below the maximum strength capability. In this condition it provides adequate strength with good ductility, which is important for fatigue life.

If we weld it and allow it to chill quickly, this can create a localized area that is very strong, hard, and has low ductility. The problem with all this is fatigue life. Such a weld as described in the report will look great, and can provide good service for a long time, until the fatigue life is up. The subject aircraft type mentioned in the NTSB report indicated fatigue cracks on aircraft with anywhere between 980 and 2100 hours in service.

Too fast of a cooling rate can occur with any welding process if performed incorrectly. Traditionally, aircraft mechanics were taught how to avoid the problem, and the heat provided by the traditional oxy/acetylene torch welding tended to gradually heat the area to be welded. Slowly heating the area allowed more of the surrounding metal to take on heat, which means it won't act like a big heat sink later on. In contrast, the TIG and MIG processes are capable of focusing a lot of heat quickly in a localized area.

The aircraft industry began the change to TIG welding because it was more economical. However, most of their engineers still recognized the need for a correct process. One local example is the Basler Turbo Conversion facility where during a recent tour we learned that while they do TIG weld the engine mounts, the mounts are then placed back into a jig and re-heated in an oven. This is similar to Stinson's process in the 1940's, except they did it to the whole fuselage. There is a good amount of quality technical data that has been written on the correct processes for welding 4130. Unfortunately, much of it is stored away in the files of industry and not easily available to the average hobbyist.

I focused on this one NTSB reference because I had that information available. A local FAA FSDO inspector told me that fatigue cracks have been occurring near the welds in some engine mounts, but I have not seen the documentation to reference.

Fortunately, most of us do try to follow good welding practices, and all welded assemblies are not necessarily exposed to the cyclic loads that tend to cause long term fatigue problems. It's also why we do annual and 100 hour inspections.

President's Message



By Wayne Daniels

Only a short time now till Chapter 252's annual "Celebration of Flight" banquet. This being the final chapter banquet to be held in the Eagle Hangar should make it pretty special. If you haven't yet made your reservations, please do so as soon as possible with Charlie Becker. You may also want to encourage others around the airport or the community that has an aviation interest to join us. Jim Koepnick, our guest speaker should have a very interesting presentation for everyone. Those of us who "point and shoot" the ever present digital camera's I'm sure will learn at least one good tip from EAA's Chief Photographer.

The weekend of Jan 17th saw another EAA SportAir workshop held in Oshkosh. While students learned everything from gas welding, to sheet metal work and aircraft wiring they built up hearty appetites. Once again Chapter 252 took orders and obtained lunches in the form of Subway Sandwiches, chips, beverages and homemade cookies. I want to thank John and Molly Egan and Charlie Becker for helping out with this project, as well as my wife Kathy for baking over 20 dozen cookies for the lunches. EAA252 banked over \$215 for this project.

Looking forward to seeing everyone at the banquet and then the March meeting will feature "Prevention is better than cure" – general safety review in anticipation that the ice & snow will give way to proper flying weather again, presented by Keith Myers on March 12th.



Chapter 252 2008 Financial Report

by Charlie Becker

Income Statement

	Jan - Dec 08
Income	
Banquet-Auction Income	2,582
Banquet-Dinner Income	2,655
Interest-Savings, Short-term CD	411
Mtg-Refreshment Contributions	58
Membership Dues-2008	600
Membership Dues-2009	620
Pancake Breakfast	533
Shirt Sales	30
SportAir Workshop Lunches	284
Total Income	7,773
Expense	
Banquet Expenses	2,921
Charitable Contribution-Founders	1,000
Insurance & Registration	237
Meeting Exp	227
Nametags	113
Newsletter	68
Other Expenses	47
Website	120
Pancake Breakfast	408
Total Expense	5,140
Net Ordinary Income	2,633

Balance Sheet

	Dec 31, 07	Dec 31, 08
ASSETS		
Current Assets		
Checking	5,840	7,852
Savings	621	11,975
Other Investments		
CD-65990-40	5,455	-
CD-65990-41	5,488	-
Fixed Assets		210
TOTAL ASSETS	17,405	20,037
LIABILITIES & EQUITY		
Liabilities	-	-
Equity		
Opening Bal Equity	14,496	17,405
Net Income	2,908	2,632
TOTAL LIABILITIES & EQUITY	17,405	20,037

Note: At year end, we were in the process of reinvesting our excess funds in new CDs.



Jim takes a break from the cold



Pioneer Airport Ski Fly-In January 24, 2009

Driving out to the airport that day, I was glad I had put on heavy socks and thermal underwear. The day had dawned cold with a nippy -2° F indicated on our outdoor thermometer. I thought surely this cold would hurt the fly-in attendance, but as it turned out I couldn't have been more wrong.

Driving down the frontage road leading up to the museum I saw a few airplanes. Thinking that a couple of brave souls had come despite the cold, I was surprised to pull into the Pioneer Airport parking area to find two long lines of ski planes parked next to the runway. The strong showing included a good variety of aircraft and ski types (for the technically oriented).

The crowd of people who flew and drove in filled up the main hangar, and for as long as it held out there was a long line of people holding out for hot chili and soup (Charlie Becker claimed the honor of getting the last bowl of chili). For desert, we were all treated to a piece of Audrey's birthday cake.

Outside, Jim Casper and his diligent crew of volunteers were parking airplanes and keeping an eye on the flow of visitors, occasionally taking turns to go inside to warm up.

From what I saw it was a great event, with plenty of snow, calm winds, and clear visibility.



Charlie, showing off the last bowl of chili. Big furry hats seemed to be popular that day.



EAA Chapter 252 Meeting Minutes
January 12th, 2009

Location: Sonex

Board Members present:

Charlie Becker, Wayne Daniels,
Janet Davidson, Randy Novak, Jim
Casper

Proceedings

1. Wayne Daniels introduced guests who joined other Chapter members for the meeting.
2. Charlie Becker & Pat Keesler (Banquet Planning Committee) outlined some of the plans and silent auction items for the Chapter banquet.
3. Adam Smith gave an update on the new banquet facility currently under construction in the Founder's Wing of the museum.
4. Eric Von noted that there are some Young Eagles waiting to be flown.
5. Pat Keesler announced that Jim Clement is planning to fly his Tailwind to the Wittman birthday celebration Pancake Breakfast being held at Wittman Airport on April 4th.
6. Current calendar
7. Feb 7th – Banquet at EAA Museum Eagle Hangar
8. March 12th – “Prevention is better than cure” – general safety review in anticipation that the ice & snow will give way to proper flying weather again, presented by Keith Myers
9. April 4th – Steve Wittman's birthday/fly in/pancake breakfast – Wittman Airport
10. May 14th – presentation by Paul Poberezny – at the Airplane Factory
11. June 11th – Bill Ziert to do a presentation on helicopters at Pioneer Airport.
12. September 12th - fly-in breakfast – probable location, EAA Weeks hangar
13. September 10th - corn roast/brat fry at Munsils, 6:00 PM, also potluck
14. October 10th - chili bash at Waynes hangar (7th Heaven)
15. Any Other Business

Wayne then introduced the guest speaker, John Weber, who gave a very interesting and informative presentation on welding.

Minutes submitted by secretary, Janet Davidson

January Meeting



Guest speaker and Chapter member John Weber spoke about welding.



Despite the cold weather 22 people attended the meeting that night.



Pictured is John Brecker from Dallas, TX, one of the 3 guests who were present. Others were Gary Geisler of Ripon and Aaron Novak of Oshkosh.



Chapter President Wayne Daniels



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Oshkosh, WI 54901



**Newsletters Are Available
On-Line at www.eaa252.org**

Items for submission are welcome and must be received by the newsletter editor no later than 2 weeks prior to the monthly meeting date.

About Us

Our chapter is named after famed aircraft designer, airplane racer and Oshkosh resident Steve Wittman.

EAA Chapter 252 offers the opportunity to share the spirit of aviation with a group of local EAA members.

Our members are mostly people who enjoy the company of others who love aircraft, are fascinated by flight, and appreciate the history of aviation in America. They include r/c enthusiasts, pilots, aircraft builders, and aircraft owners.

Join Us!

Regularly meetings are held on the second Thursday of the month at 7:00 PM. Dates are subject to change, call to confirm, visit us at www.eaa252.org. Annual dues are \$20 for all current members of the Experimental Aircraft Association (EAA).

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