



# CAA Chapter 32 News

Jim Bower, Editor



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**April, 2010**

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**Come to the meeting on Saturday, April 17 at 10:00 am.**

**A great program is planned! A short meeting, and then we do Young Eagles (actually, the meeting will be happening DURING Young Eagles).**



**Read this month's Learning As We Go column and find out why this lazy so-and-so is sitting on his heinie making airplane noises while his (former) friends and (hopefully not former) wife are pushing.**

(Your friendly editor thinks he should have been wearing the other wheel pant on his head.)

# March Meeting Minutes

Our March meeting began with the pledge, Dave Doherty presiding. We approved minutes from last month, then Don gave the Treasure's report. He reported savings and checking amounts, also some outstanding amounts for coupons: get your money in. We just paid a big gas expense covering most of the winter usage. Don explained a deal with the gas company by which we can get a discount by buying in advance. Over the summer when usage is low we can commit to buying at a lower rate.

**Taxes:** Don spoke with Pat Donovan, who has been to H&R block school and is familiar with 990 form. Don's headed to Troy to go over the forms and previous years' concerns. HQ had suggested CPAs (who start out at \$500 and go up \$125/hour) and attorneys who are even more expensive. Don hopes to have the taxes wrapped up soon.

Next we recognized visitors and new members. David Case is from Alton and is a new member. He's checked out other local chapters, including 64, and decided on 32. His current project is a Cozy. Greg Lyle from Hague water was also present to discuss water treatment. A non-human visitor, Joe Sargent's RV, was also in attendance.

In May we've got a Spring Celebration, an all-day event starting with breakfast and going through until the movie. Bill has asked and received from HQ a list of nearby EAA national members so we can do a mass mailing.

**Fundraising:** We've got about enough to run for a year. We're working with O'Fallon to arrange a spot at the July 4th Event, possibly even a float for the parade. We're still doing food coupons, and may start a 50/50 raffle.

**April 17 YE Event:** Bill spoke. The US Naval Sea Cadets, approximately 30, will attend. Bill's doing the aviation merit badge, and will take them outside to walk around an airplane during the meeting. This will give the chapter as a whole a look at the YE program.

On April 3rd we will hold a riveting workshop. Jim Bower reports we can accommodate as many as would like to come, up to as many as 20. Gale will assist. (*See elsewhere for a short report on this event - ed.*)

Doug Killibrew will have pavement info for next exec meeting.

Some miscellaneous objects need to be dealt with. The flagpole needs to go up, kiosk and kiddie ride in the hangar could go to eBay. Ernie's stuff: Don found a Cavalier website and is looking into an interested party before

it starts to rot. Other possibilities include Barnstormers and eBay. Al Rivera will help Don go through the model stuff, put it in lots, and hold a silent auction. Al's connected to the R/C group, which may have an interest.

**B-17, July 12 through 15:** We're going to publicize a lot more than the last event, and we'll need volunteers. There will be 6 open seats to KC! Our first thought is that they should go to folks who spend the most time volunteering. Seats are free to the chapter, passengers are responsible for getting back home.

We'll be at the June Boy Scout Jamboree in Forest Park. We've been asked to arrange 15-20 minute activities, they'll cycle groups through.

**Upcoming Aeromedical program:** Bill is envisioning 3 separate sessions: Aviation Medical Examiner for talk and q/a, someone from EAA HQ to give us an overview of member resources for medical/certification issues, and someone from AOPA in a similar capacity. He's talked with Gary Crump, the top certification person there, who's willing to come out and speak. AOPA will promote this as well.

Paul Poberzny e-mailed about the EAA logo, regarding the interest level in changing it back. We held an impromptu poll of the members in attendance, voting in favor of the old logo with wings. Bill Doherty was on the tour of the founder's wing, browsed through a file cabinet, found stickers of the old logo that Paul had saved, and commented that he liked them better than the current logo.

Greg Lyle from Hague Water spoke next. Their system is not a water softener, but a triple-chambered, four-element system, on-demand, designed to take everything in the water...out. A current issue is pharmaceuticals in the water. Atrazine, an agricultural herbicide/pesticide, is there as well: relevant for us out here in the hinterlands. His system costs \$4600 total.

Joe Sargent then gave a presentation. His RV was the first to be assembled in this facility (in winter, before our heating system was installed, to give you an idea of his level of determination).

*Dave Deweese  
Secretary*



# Learning As We Go

“Two Men and an Airplane”

or

“What Are Those Troy Boys Up to Now?”

by mr. bill

When we last saw the EAA Technical Counselor he was busy building in his Troy Airpark Residence Lower Level

attaching things to the RANS S-6 Coyote II kit as shown in the February Newsletter. Well, Sir Gale has been so busy that it was soon time for the BIG move from the lower level to the hangar. For that, there is one company that everyone calls: Two Men and an Airplane (TMAAA).

This company once again showed its expertise in these delicate matters. The original idea was to involve a riding lawn mower, a long strap, and the builder/pilot to “steer” the machine as it was maneuvered about quickly. Though with the help of a new consulting senior partner of the company, Mr. Pat (EAA 1387 President and Troy Airpark resident) it was quickly determined to save money and fuel, be GREEN, and make this a “push and shove” operation!

LOCATION! LOCATION! LOCATION!

The steps are easy.

- 1) Get it TO the door!
- 2) Get it OUT the door!
- 3) Get it UP the hill!
- 4) Get it ON the concrete!
- 5) Get it IN the hangar!

It **IS** that easy!

The company’s CFO - Chief Financial/Female Officer, (builder’s wife) was also brought in for this operation!



Well, on the poor side of town the “Strong back weak mind” department is **STILL** trying to sort through all the stuff that was jammed into the 50’ by 60’ foot research/development area! A concrete floor has been seen by several eyes now! A glimpse of the TOP SECRET project has also seen the light of day!

Well, **LEARN TO FLY DAY!** is May 15, 2010 and it would be a great thing to head over to St. Charles Flying Service and take an Introductory Flight to not only stimulate the economy but also stimulate your life. Dave Pressy spoke to us at the January 2010 EAA meeting! Head on out there and tell him YOU want to finally do some flying!



Gale: “Wotta GREAT day fer an aeroplane ride!”

Karen: “Yer taking me OUT for dinner tonight, bucko!”

# Finding and Fighting Fatigue (Part 2)

Continued from last month

By William B. Johnson, PhD and Katrina E. Avers, PhD  
Reprinted from the January/February issue of FAA Aviation News

## Squeezing in More Sleep

Avoiding fatigue is not rocket science, yet we as humans continue to challenge conventional sleep wisdom by drinking too much caffeine, consuming too much refined

Although air carrier pilot fatigue-related mishaps make the headlines, GA pilots are subject to the same fatigue-related risks.

sugar, not getting enough exercise, and engaging in other sleep-preventing behaviors, all while working long hours often under great stress. Our jobs have reduced the re-

quirement for extensive physical work, and child's play is now more likely to involve a computer game than a ball field. This vicious cycle drives us to exercise less, eat more, and sleep less—and the cycle continues.

The solution is amazingly simple, yet often difficult to implement: Get more sleep. Humans need about eight hours of sleep in a 24-hour period. It takes about 15 minutes in bed to fall asleep, and your last 15 minutes of sleep is not healthy, restorative sleep. That means that you should spend eight and a half hours in bed, dedicated to sleeping, each night.

Don't allow television, radio, or food in bed. If you miss sleep one night then you must sleep extra the following night to catch up. If you want to avoid fatigue, these simple rules are not negotiable.

If you are uncertain of your sleep duration, then you should try keeping a sleep diary. This may be the first advice you would get from a clinical sleep professional. The FAA developed a chart (see previous month) that you can use to track your sleep patterns over a 14-day period. Do you need more sleep? Go to [www.mxfatigue.com](http://www.mxfatigue.com) and find out.

Numerous scientific studies have matched the performance of fatigued drivers to the performance of drunk drivers. The next time you are awake for 20 hours

straight remind yourself that your performance level is equivalent to that of a legally drunk driver. Fatigue can affect not only your ability to drive the car, but your decision to drive in the first place. Should you be flying an airplane when you are in that condition? Write the next day's page-one headline in your head,

and then lay it down on your pillow to sleep.

## Fatigue Mitigation for Air Carrier Pilots

In June 2009, FAA chartered an Aviation Rulemaking Committee to develop recommendations for rulemaking on flight time limitations, duty period limits, and rest requirements for Title 14 Code of Federal Regulations part 121 and part 135 pilots. The committee completed its work in September. As of this magazine's publication deadline, a rulemaking team was evaluating the committee's recommendations and developing a Notice of Proposed Rulemaking (NPRM) on fatigue mitigation for part 121 pilots. While this effort is aimed at air carriers, all areas of aviation will benefit from a spotlight being shone on the fatigue risk factor, which affects all sectors of aviation and all pilots from students through ATPs.

## For More Information

FAA Fact Sheet on Pilot Flight Time, Rest, and Fatigue  
[http://www.faa.gov/news/fact\\_sheets/news\\_story.cfm?newsId=6762](http://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=6762)

Fatigue in Aviation  
[http://www.faa.gov/pilots/safety/pilotsafetybrochures/media/Fatigue\\_Aviation.pdf](http://www.faa.gov/pilots/safety/pilotsafetybrochures/media/Fatigue_Aviation.pdf)

Fatigue Section of the Maintenance Human Factors Web Site  
<http://hfskyway.faa.gov/HFSkyway/FatigueHome.aspx>

Proceedings from FAA Aviation Fatigue Management Symposium, June 17–19, 2008  
[http://www.faa.gov/news/conferences\\_events/2008\\_aviation\\_fatigue/](http://www.faa.gov/news/conferences_events/2008_aviation_fatigue/)

# Thread Gap Oil Leaks

By Jerry Erickson

Oil leaks can come from many sources. Here is one that hasn't been heard from before:

First, about threads used for aircraft engines. Tapered threads, called pipe threads, need to have a sealer on the threads to block the thread gap and prevent leaking through the threads. Straight threads are used for nuts and bolts and studs that are used to clamp things in place. On aircraft engines, no thread sealer is needed.

Both SAE & metric types of fasteners have straight threads, and they too have a thread gap. THREAD GAP is the space designed into the threads to allow them to be screwed together. The thread gap is there even when the nut is tightened in place.

About external oil leaks and thread gaps:

A homebuilder in Iceland asked for help over the internet to solve a persistent oil leak on a 912 Rotax engine. The leak showed up as a light coating all around each time the engine was run up. Tracking down the usual suspects... lines, fittings, gaskets, seals, overfilling & spillage and so on...was no help.

Our next step was a solvent wash followed by a foot powder spray coating... yes, it works to clean the engine surface, dry it & spray on a coating of foot powder that will be nice and white for awhile. We are trouble shooting here, so whatever works...works.

Short runups showed slight oil staining of the powder coat at each of the four cylinder to head mounting joints... but not anywhere else.

The history of the engine helped aim us at the cause of the oil leaks. It had changed owners and had a partial disassembly to see its condition prior to re use.

Study of the 912 Rotax parts breakdown and the maintenance steps for re-assembly aimed us at the cause of the low pressure oil leaks.

Each cylinder has four studs & nuts to clamp the head in place. Two studs have open nuts, collar nuts, on the outside of the head. The other two studs are inside of the rocker box cover, which is an oil whetted area. The nuts for these two studs are called CAP nuts, and cap off the top of the stud. When torqued in place to the head, the cap nut design seals against the head.

Inspection revealed that the two types of nuts had been switched on each cylinder at re-assembly... yes, they all fit in the wrong location.

Now to the oil leaks. Oil blow-by mist had been flowing thru the small, very small, thread gaps at each of the eight studs inside of the rocker boxes.

Switching the nuts to their correct locations solved the low, blow-by pressure leakage that occurred from oil traveling thru the thread gaps to the out side.

Problem solved... On to some learning points.

Threaded connections have thread gaps, if oil is on one side it will try to flow through the gap.

Murphy's law...if an aircraft part can be installed incorrectly, it will be.

Always use the maintenance data to keep parts in the right place.

## Electronic Newsletter

As part of your membership in Chapter 32 you are entitled to a printed copy of the monthly newsletter. For a number of years, the newsletter has also been published on the chapter web site ([www.eaa32.org](http://www.eaa32.org)). Reading your newsletter online allows you to see the pictures in higher-resolution color and also saves the chapter money.

The online newsletter actually appears before the snail-mailed hard copy version (almost 2 weeks before each meeting), and our web designer will notify everyone via the Yahoo board when it's available.

Out of our nearly 100 recipients, about 2/3 have chosen to read their copies online, resulting in a monthly cost of \$55.00 for the remaining 1/3 (printing and postage).

For various reasons, we will always have a printed newsletter, but please consider reading yours online. If you decide to switch, please contact me (your friendly editor) at [jimbower@hotmail.com](mailto:jimbower@hotmail.com). Thanks! (And if you ever want to switch back to a hard copy...no problem!)

# President's Corner

By Dave Doherty

Hello Chapter 32. April's here and things are starting to happen. We had a sheet metal riveting workshop on the first Saturday (April 2). Gale Derosier and Jim Bower put on quite a show. Art Zemon was the guinea pig, and practiced while they preached. Bill Doherty was on hand to record the workshop for those who did not make it. They discussed and taught how do aircraft quality riveting in a proper manner. Gale and Jim went over tools that will be used, dimpling of sheet metal for flush rivet jobs, how to select the proper length rivet, gauges that need to be used, and drilling holes. Then the fun started. Art drilled holes and set some rivets using various tools. Then they went over how to correct a rivet that's set improperly. Art complied, and set a couple rivets in that manner. They went over the art of how to properly drill out a bad rivet and set new ones in their place. The whole workshop was very informative. If you are thinking about constructing a metal plane, you will be setting thousands of rivets, and it would be a good idea to see the recorded workshop now in our educational archive. Nice job guys. I learned a lot and didn't squeeze a single rivet.

This month's meeting will feature a Young Eagles event. Chapter 32 is very involved with Young Eagles, and it's a good idea to show all our members what goes on during one of these events. Last month, we had a demonstration and price quote for a water filtration system. After the demo, I had the salesman check the water at the administration building, and lo and behold, the water is pretty good over there. If we wish to have clean drinkable water, the least expensive route is to have a pipe run to our ARC from there. I'm working with Tracy Smith to see what we can do here. I'll try and have an update as to progress.

May is going to be busy. May 1 is a Young Eagles event at Washington, Mo. On May 15, we have a chapter meeting. Also on the 15<sup>th</sup> is International learn to fly day. There will be a mass mailing going out to all EAA members in the St Louis area inviting them to our open house on May 22. We need to give a good impression to all who attend. Hopefully, we can bring in some new members to share experiences and skills with. We'll have presentations of what our chapter is about, some of our member's planes and projects there, and our movie of the month in the evening, which is "The Spirit of St Louis". A BBQ will be going on most of the day. I can't say attendance is mandatory, but I'd sure like to.

June will start off with a bang. On June 4-6, there is a Boy Scout Jamboree in forest Park. HQ has asked for help with an aviation activity to be run during the event. We're in the planning stages of this activity. What they're looking for is something that lasts about 20 minutes or so for around 50-100 kids, several times per hour. International Young Eagles Day is June 12. Chapter 32 will have a Y.E. event at Smartt Field. June 19 is our Chapter meeting. The 26th is movie night.

July's a real firecracker. Our chapter will be involved with a parade in O'Fallon, MO and a big fundraiser at the O'Fallon Heritage Festival on July 2-4. We'll be hosting the EAA B-17 Foundation's Aluminum Overcast on July 12-15. We'll have a chapter meeting, and then there's Airventure at Oshkosh.

I have some concerns about chapter meeting attendance, or lack of it. Perhaps it was the cold winter, or other factors. If you can make it to the chapter meetings, please come. We need your input and help. Our chapter can't thrive on the work of a few members. There are a lot of activities coming up, and we need participation. There are ways to get in contact, and the Internet is a very effective tool. If you're a chapter member and aren't a member of the Yahoo group, please join (you can find info about it at [www.eaa32.org](http://www.eaa32.org)). Our website at [www.eaa32.org](http://www.eaa32.org) also has a members only section. Lots of good info there, and we want to make it better. There is a lot of news that filters through the yahoo group and the members only section. Also, EAA national has the Oshkosh365 group on the national website at [www.eaa.org](http://www.eaa.org). It's a very good venue for communicating with fellow enthusiasts. Bottom line is, I'm asking the membership to get involved in trying to make this chapter vibrant again. Your leadership would like chapter 32 to be a presence in the aviation community, much more than it is now. We have a rich legacy of over 50 years, and need to live up to it. Your chapter leaders are doing their best to make it so.

I'll see you at the meeting,

**Dave Doherty**  
**President, Spirit of St Louis EAA Chapter 32**  
**EAA #119064**



## 1/4 share RV-6A - \$16,300.



- Slider canopy, hangared @ St Charles County, KSET
  - 160 HP Lyc, 1250 TT, 1110 SMOH, Fuel Injected, C/S Prop
  - Garmin GNC-300 IFR GPS/COM, Terra NAV/COM w/Glideslope, KT-76C Transponder
  - TruTrak GPS Attitude Direction Indicator
  - Rocky Mountain Instruments Engine Monitor
  - Built in 1998 by American Airlines mechanic
  - Easy cruise 167 mph @ 8.2 gph
  - Includes overhaul fund (currently > \$7,600.)
- Great plane, great partners, selling because I need 4 seats!

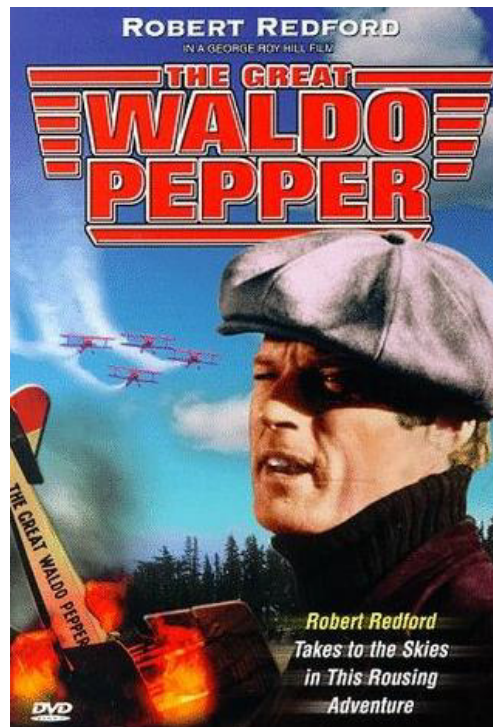
Call Mike Piccirilli (636) 530-1748

9/8/09

## Movie Night at the ARC

March's movie night was a real blast! After a great potluck dinner (featuring grilled burgers and dogs), we watched "Amelia", starring Hillary Swank and Richard Gere. Your friendly editor was highly amused at a parental warning preceding the movie stating that the movie has SMOKING in it! The very IDEA!

This month's movie is "THE GREAT WALDO PEPPER" on the BIG SCREEN. It will be shown on Saturday, April 24. Prior to the movie, we'll have a social hour and a half starting around 6:00. There will be a pot luck dinner. Please bring a side dish, salad, or dessert.



Meat will be provided, and old movie serials will be featured (Episode 5 thru 7 of Tailspin Tommy). Donations are welcome to help defray the expenses (suggest around \$5 per person, more if you're feeling generous). Come on down and have fun! We'll be at Smartt Field in St Charles County, at our Resource Center at 6410 Grafton Road. Did you know the Curtis Jenny used in that movie is now at Creve Coeur airport (IHO) in the process of a full restoration. It has the words "The Great Waldo Pepper" emblazoned on its side. I saw it last week.

CALL THIS NUMBER FOR INFORMATION ABOUT  
UPCOMING EVENTS  
**314-286-9932**  
**INFORMATION HOTLINE**



Check out our Fantastic Web Pages at  
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Laura Million, Web Designer  
While you're there, take time to join the  
Yahoo Groups to help you stay abreast of  
Chapter happenings!

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