



EAA Chapter 1612 Newsletter

November 2019

DAVID J. PERRY AIRPORT (1K4) GOLDSBY, OK

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From the Front Seat—President Eric Muehlberg

As usual, there has been a lot going on with the Central Oklahoma aviation scene over the last month. During the fall it seems like one can pick and choose which events to attend. This weekend is no different since the Fairview Fly-In and our November chapter meeting usually fall on the same day. But, I've found with a little planning I can still attend both. I leave at daybreak (7:00 a.m.) for Fairview and arrive about 45 minutes later and sometimes win a turkey (every 10th airplane). I then take advantage of the pancake breakfast and walk the flightline checking out all the cool aircraft on display. Then, after an hour or so, I blast off for the Chapter 1612 meeting and lunch. I use the same method for the Texas Antique Aircraft Association's (AAA) Fall Fly-In in Gainesville, TX, which is always the second Saturday of the month. I'm sure many of you have made the Ponca City Fly-In breakfast then flew back south to Pauls Valley for the Oklahoma AAA lunch on the first Saturday of the month. I could list a number of other similar aviation event opportunities throughout the year. Airplanes are wonderful traveling machines, allowing us the ability to attend multiple events in the same day, even though they are separated by a lot of miles. Remember, none of us have any guarantees in this life. I for one don't want to waste any opportunity to fly and attend a regional aviation event just because they're on the same day.

This month's chapter meeting will be held at the David J. Perry Airport (1K4) in Goldsby, OK on 9 November from 11:30 a.m.-1:30 p.m. Our lunch will be a Chili Potluck Lunch. We ask those attending to bring a pot of your favorite chili or an appropriate side dish or desert. The chapter will provide the drinks and tableware.

This meeting will also be our bi-annual

chapter officer elections. If you've ever thought about serving as a chapter officer, there is no better time than now. If you are interested in a particular position, don't hesitate to give me or one of the other officers a call.

Also this month we will present our chapter tool crib program and what tools are available to our chapter members. We will also be soliciting ideas for additional tools to add to the tool crib in the future.

Speaking of tools, the drill bits I talked about during the last meeting are called "double margin bits." The ones I passed around are known as "double margin with pilot" bits. Again, they are available from the "Yard Store" in Wichita, KS. I'll have the catalog with me at the meeting if you'd like to see what products they offer. The website is the "yardstore.com."

You will receive the **EAA Chapter Member Survey** on Friday, 8 November. This survey is intended to provide the chapter with valuable information as to what areas the chapter does well and areas we need to improve. It can also show us areas of interest or programs that chapter members may want the chapter to pursue. Once the survey is complete, we will be sent our chapter's results, alongside the aggregate results from the entire chapter network.

Chapters having at least a 25% survey participation rate and a chapter membership recommendation score of 8 or higher (out of 10) will receive credit toward the 2019 Chapter Recognition program. So, I ask that each member please take the survey not later than Sunday, 1 December 2019.

Lastly, on a personal note, my SPA Panther LS has now flown over 40 hours and has completed the Phase I flight test program. It has been a lot of fun with no problems or surprises. If only everything in life could be like that. Now

Inside this issue:

| | |
|--------------------------------------|----------|
| CHAPTER MEETING LOCATION | 2 |
| OIL ON A COLD DAY J COX | 2 |
| VMC CLUB QUESTION | 2 |
| CLASSIFIED ADS | 3 |
| TOOL LOANER PROGRAM | 3 |
| EVENTS & CHAPTER MEETING PICTURES | 4 |
| CHAPTER LEADERSHIP INFO | 5 |

on to the Thatcher CX4 flight test program.

Hope to see you at David J. Perry this Saturday.

Eric



EAA Chapter 1612 Newsletter

Meeting Location: David J. Perry Airport (1K4) Goldsby, OK

This month's meeting will be held at the David J. Perry airport (1K4) in Goldsby, OK on the 9th of November from 11:30-1300. Our lunch prior to the meeting will be a Chili Pot Luck Lunch. The chapter will provide the drinks and tableware. We ask that those attending bring an appropriate side dish or desert. If you have any questions, call Eric Muehlberg at 405-923-6749 for details.



David J. Perry Airport (1K4)

Oil...on a cold day

EAA's Jack Cox

"IN VERY COLD CONDITIONS WITH SUMMER OIL, IT MAY NOT BE POSSIBLE TO PREHEAT ENOUGH FOR SAFE FLYING..."

The lubrication system in an airplane engine uses a positive displacement gear pump to suck oil from a sump and force it into a few critical bearings. The output pressure is limited by a bypass relief valve to protect the pump, filter, oil cooler and other components from excessive pressure buildup. When the engine is cold the engine bearings, etc., are unable to absorb much flow and most of the pump flow is bypassed over the relief valve. Unfortunately, the design of most engines is such that this bypassed oil flow never gets to warm parts of the engine. Instead it is returned directly to the sump with no opportunity for any temperature rise. Thus, when the lube system is cold and needs heat to reduce viscosity and improve circulation, the cold oil has poor access to the hot engine oil. This suggests why oil temperatures are so strangely and dangerously slow to rise compared to cylinder head temperatures. On a cold day, a simple hot air pre-heat can quickly send the cylinders to Florida for easy starting, but the oil supply situation could still be in International Falls, particularly as the throttle is advanced. Tests with typical hot air pre-heats show that the crankcase sump oil takes a long, long time (commonly well over an hour) to warm up even a little. Don't let an FBO send you on your way too soon! An oil pan preheater more directly addresses the real cold start lubrication problem. Some have suggested that leaving it on all winter may cause corrosion products in the oil to be distilled onto the cylinder surfaces. A partial saving grace is that the cold temperatures also reduce the chemical reaction corrosion rates about 50% for every 20 degrees of

temperature drop.

The engine manufacturers seem to have established a maximum no-pre-heat winter start-up viscosity of about 20,000 SSU, assuming winter grade oil. If so, summer weight oil also has to be approached carefully in cooler temperatures as cold start problems can occur in surprisingly moderate temperatures. For example, SAE 50 oil below about 45 degrees F is near the same viscosity limit as 20W50 at about 5 degrees F. Don't get too carried away with initial rpm on a cooler fall day. Identify and observe the pump cavitation limit.

In very cold conditions with summer oil, it may not be possible to preheat enough for safe flying as there may be too many cold surfaces in the lube system on which oil may congeal and not return to the sump properly. Under these circumstances the only thing to do is to patiently preheat the oil enough

to change it BEFORE flying.

Make it a habit to check the oil pressure trend during the initial take off roll in cold weather to make sure the pump is taking in oil properly. Pump Intake cavitation will show by a mysterious pressure reduction as the power is advanced. Use an oil which will free flow at low temperatures. The synthetics or partial synthetics are a real plus to engine life, but only use them after break-in. If you have to span an excessive temperature range (like going to Sun 'n Fun), it is probably better to err on the side of too thin oil than too thick.

Consider the manufacturer's cold weather oil recommendations and pre-heat requirements as more than just suggestions to be followed only when convenient. Rather, they are a maximum start-up viscosity design limit (from the parts supplier!), which already assumes winter oil grades, above which one is inviting very serious trouble.

Jack Cox

VMC Question of the Month

The question:

What is the meaning of the symbol in the left top corner of the picture below?



What is it?



The October "What is it" is a Curtiss Robin B-1

Introduced in 1928, was a high-wing monoplane built by the Curtiss-Robertson Airplane Manufacturing Company. The Robin, a workmanlike cabin monoplane, had a wooden wing and steel tubing fuselage. The cabin

accommodated three persons—two passengers were seated side-by-side behind the pilot. Early Robins were distinguished by large flat fairings over the parallel diagonal wing bracing struts; the fairings were abandoned on later versions, having been found to be ineffective in creating lift. The original landing gear had bungee rubber cord shock absorbers, later replaced by an oleo-pneumatic system; a number of Robins had twin floats added. Variants of the Robin were fitted with engines which developed 90–185 hp.



Here is the November "What is it?"

Classified Ads

For Sale: 1938 Taylor-Young. Low time Continental A-65 installed and original Continental A-40 available. All engine modifications have approved 337s. Asking \$15K. Contact Wally Black at stearman3@hotmail.com



For Sale: Steve Ingraham has three experimental engines in his hangar he'd like to sell: a Buick aluminum 215 V-8, an EA-71 (1600 cc) Subaru, and a 4 cylinder AO-84. Give him a call at 405-822-0621 or come give them a look on Saturday; he needs to free up some space in his hangar.

For Sale: 7" dia. prop end, 6" dia. engine end, length: 4" "Saber MFG" Black anodized ext 4" long with threaded stainless prop lugs. Lugs are 3/4" diameter for 1/2" prop and engine bolts. Will fit O & IO-360 Lyc engines and is common on RV-X or other A/C with wooden props. Was used for about 16 hours and replaced by a longer ext. New price is currently \$453. Make a reasonable offer.



Contact Kelly Troyer at kel-tro@att.net (405) 853-5226

Tool Loaner List (more to come here)

- **Wing Rotisserie** – Terry Joy has a wing rotisserie he used to paint his Piper Colt. He would loan it to someone for a similar project.

- **Aircraft Weight and Balance Scales**

- **Paint System**—High Volume, Low Pressure paint gun

We have acquired more tools for use. We are developing a tool list which we will post in the newsletter and on our Chapter Website in the near future. *Stay tuned.*



Cedar Mills Fly In



OK Antique Aircraft Association Fly In Paul's Valley





Who is EAA and Chapter 1612?

We are the Experimental Aircraft Association (EAA) a growing and diverse organization of members with a wide range of aviation interests and backgrounds and a mission of growing participation in aviation to include antiques, classics, warbirds, aerobatic aircraft, ultralights, helicopters, and contemporary manufactured aircraft.

EAA and Chapter 1612 enables you to share the spirit of aviation with the most passionate community of recreational pilots, builders, and restorers. We are an association that offers the fun and camaraderie of participating in the flying, building, and restoring of recreational aircraft with the most passionate community of aviation enthusiasts. Come join use today!

President

Eric Muehlberg
405-923-6749
smuehlberg@pdi.net

Newsletter Support

With a new look, comes the need for articles and pictures. Please help with "our" newsletter by sending articles and/or pictures to Dennis D'Angelo at EAA48@aol.com. Thank you. *dd*

*Visit the chapter website at
1612.eaachapter.org.*

Chapter Leadership and Contacts



President –

Eric Muehlberg
405-923-6749
smuehlberg@pdi.net

Vice President –

Jesse Sullivan
405-354-9769
jesseyukon@aol.com

Secretary / Treasurer –

Steve Ingraham
405-822-0621
steveingraham@hotmail.com

Young Eagle Coordinators –

Robert & Christy Self
580-799-2572
robert.self@ymail.com

Eagle Flight Leader

Herb Driskill
405-834-212
hdriskill@aol.com

Technical Counselor

Eric Muehlberg
405-923-6749
smuehlberg@pdi.net

