



Experimental Aircraft Association

Chapter 24

Oklahoma City, OK

January, 2017



Meeting location

The January 12th, 2017 meeting will be at Sundance Airport, beginning at 7:00 PM. The meeting is upstairs in the FBO building / main terminal. Arrive early to socialize with your fellow aviation enthusiasts.

Sundance Airport

1300 N Sara Rd, Yukon, OK 73099

Phone: (405) 373-3886

<http://sundanceairport.com/>



1.3 miles West of the Kilpatrick Turnpike on the Northwest Expressway, then 0.9 miles North on Sara Rd to airport entrance. Google Maps Link:

<http://goo.gl/maps/Q1dU9>

Previous Chapter Minutes

November 10th Notes from Dan Burdette

Meeting was called to order at 7:03 pm by Chapter President, Jim Putnam.

There were 23 in attendance.

New attendees:

Cody Hunter-has a Recreational Certificate

Peter Bostwick-Private Certificate interested in Young Eagles

John Nunley-has an A&P Certificate and interested in building

Old Business:

Young Eagles flown at Shawnee on October 22 totaled 39. Pilots included Pat Cohenour, Eric Muehlberg, Steve Schmitt, Terry Joy, Jim Putnam, and Bob Sheehan. Ground crew included Dan Coats, Larry Hinton, and Brad Yarberry.

Young Eagles flown at Altus on October 29 totaled 16, plus 3 Eagle. Pilots included Pat Cohenour, Jim Harris, Jim Putnam, William Southhard, and Mitch Williams. Ground crew was Steve Schmitt.

New Business:

- Young Eagles from John Marshall High School JROTC on November 5 canceled.
- Young Eagles from Crooked Oak High School is scheduled for December 10.
 - The EAA Chapters 24 and 1098 December annual Christmas dinner/meeting will be on Saturday, December 3, 4:00pm. The location is Gary Manning's hangar, Twin Lakes Airport, 13801 Chandelle, Newalla, OK 73857.
 - a. Bring a covered side dish or dessert (meat and drinks furnished by EAA).
 - b. Directions will be published in next newsletter.
 - c. Send invitations to Jerry Hunter, Jordan Knudson, Sam Simms, and Steve Russell.

- There is a pinto bean and chili fund raiser for the benefit of the EAA Youth Scholarship Fund at David J. Perry Airport on Saturday, November 19. The time is 11:00 am to 1:00 pm, rain or shine. Chapters 24 and 1098 are sponsoring the event.
- Videos for the chapter meeting included the German HY4 aircraft, a Bob Hoover airshow performance routine, Pearson Field Airport and its wood aircraft factory, a three-man crew 1937 flight from Moscow to Pearson Airfield covering 5670 miles and over 63 hours. There was a video from EAA headquarters called the VMC Club. The VMC Club will be focused on VFR flying. EAA will announce webinars to introduce the VMC Club.
- Each EAA chapter will now be required to have an official handbook from EAA.
- The EAA is working with TruTrak Flight Systems to get an STC for their Vizion autopilot, so it can be installed in some type-certificated aircraft. The initial aircraft will be the Cessna 172 model and then expanded to other general aviation aircraft.
- There was a video on Sonex Aircraft's new designs.
- There was an EAA video on lubricants for aircraft hinges, rod end bearings, and other airframe parts.
- The Fairview Airshow is Saturday, November 12.

Meeting adjourned at 8:12pm

EAA CHAPTER 24 ON-LINE

EAA CHAPTER 24 WEBSITE



The chapter web site is up and running on Yahoo Groups. Appears to be running well and has received good reviews. The website is located at the following address:

<http://groups.yahoo.com/group/EAA-Chapter-24/>

Chapter 24 has a Facebook page. Come join and check it out at:

<https://www.facebook.com/#!/EAA24>



Thanks to Brian Strack for creating this page for all Chapter 24 members and guests.

YOUNG EAGLES



Upcoming Y/E Events will be discussed and finalized at each Chapter meeting

Notify Pat Cohenour and let him know if you are planning on attending and flying any of our scheduled Young Eagle activities. All of us and the Young Eagle kids will appreciate it.

YOUNG EAGLES WORKS

EAA says its Young Eagles program, which aims to introduce youngsters to general aviation, has been successful at inspiring those youngsters to become pilots. By checking FAA's pilot registry against its list of Young Eagles going back to 1992, EAA said it found that Young Eagles are 5.4 times more likely to become a pilot than those who never participated. "The numbers show that Young Eagles is making an impact on the pilot population that is unmatched by any other single program," said Former EAA Chairman Tom Poberezny. The EAA analysis also showed that 9 percent of those pilots are female, a gain of 50 percent compared to the overall figure of 6 percent of the pilot population.

Upcoming YE Events:

- No information at this time.

FROM OUR MEMBERS

Nothing this month

SAFETY

Pilot's Tip of the Week

Contacting Ground After Landing

http://www.pilotworkshop.com/tips/atc_contacting_ground.htm

Featuring John Krug - [view profile](#)

7 years experience as an Air Traffic Controller combined with his experience as an active flight instructor, allow him to assist pilots in gaining a better understanding of the ATC system and how to best operate in it.

Subscriber Question:

"My question relates to radio communication when landing at a tower-controlled airport. Once you have touched down and are leaving (or have exited) the runway, many airports will immediately tell you to switch to the ground frequency once clear of the runway. Some towers do not say anything. My question is (once clear of the runway) are pilots supposed to remain on the tower frequency until they are told to contact the ground frequency OR once clear of the runway should a pilot immediately switch to the ground frequency and report his position and intentions?" – Anonymous

John:

"A pilot who has just landed should not change from the tower frequency to the ground control frequency until directed to do so by the controller. The tower controller may need to issue subsequent instructions to hold short of another runway or taxiway.

Recent changes to the Air Traffic Controller's manual require ATC to obtain a verbal acknowledgment of runway crossing and hold short instructions from the pilot. If you leave the

frequency, the controller will not be able to obtain the acknowledgment.

If the pilot has not received instructions to taxi or contact ground after a reasonable amount of time, query the tower controller. Of course, whenever in doubt about your taxi clearance, ask the controller for clarification."

Checking the Dipstick

November 15 2016 / Mike Busch

https://blog.aopa.org/aopa/2016/11/15/checking-the-dipstick/?utm_source=eBrief&utm_medium=Content

We've been doing it since our earliest days as student pilots. Now that we're aircraft owners, we still do it as part of our standard preflight ritual. But are we doing it right?

It turns out that there's a lot more to checking the engine's oil dipstick properly than just making sure that the oil level is above the minimum-for-flight level listed in the POH. If we really pay attention, we can learn a lot about the condition of our oil and of our engine.

How much oil is needed?

The engines on my Cessna 310 have 12-quart sumps—13 quarts if you include the quart in the spin-on oil filter. When I first acquired the airplane, my mechanic would fill the sump to its maximum capacity at each oil change. It didn't take me long to discover that the engines didn't like that, and promptly tossed several quarts out the engine breathers.

My POH states that the "minimum for flight" oil level is 9 quarts. So I asked my mechanic to service the sump to 10 quarts (instead of 12), and I'd add a quart of make-up oil when the level got down to 9 quarts. That worked better, but I was still seeing a fair amount of oil on the underside of the engine nacelles and the outer gear doors.

After I became a mechanic myself and learned about such things, I checked the Type Certificate Data Sheet (TCDS) for my Continental TSIO-520-

BB engines, and found that an oil level of 6 quarts was sufficient to make good oil pressure in all flight attitudes from 23° nose-up to 17° nose-down. Armed with this information, I decided to experiment with lower oil levels.

What I discovered was that oil consumption (and the oily mess on the airframe) was drastically reduced if I maintained the oil level at around 8 quarts on the dipstick. Since then, I've avoided filling the sump to more than 9 quarts, and I normally do not add make-up oil until the dipstick reads about 7½ quarts. (This still gives me a 1½-quart "cushion" above what the engine needs to operate reliably in all flight attitudes.)

You might wonder why Continental put a 12-quart sump on an engine that requires only 6 quarts. The answer is that FAA certification requirements demand that the engine be designed to hold twice as much oil as it actually needs:

FAR §33.39 Lubrication system.

(a) The lubrication system of the engine must be designed and constructed so that it will function properly in all flight attitudes and atmospheric conditions in which the airplane is expected to operate. In wet sump engines, this requirement must be met when only one-half of the maximum lubricant supply is in the engine.

The TCDS for my TSIO-520-BB engines states that maximum acceptable oil consumption is about one quart per hour. If my engines actually used that much oil, then I'd need to fill the sumps nearly to their maximum capacity to ensure that I had enough oil to make a 5-hour flight without risking oil starvation. But since I know from long experience that my engines use more like 0.1 quart per hour, there's no reason for me to carry anywhere near that much oil.

Every aircraft engine installation has an optimum oil level at which oil consumption is minimized and the engine is happiest. I would encourage you to experiment to determine what oil level works best for your airplane. Your engine will operate properly at 50% of its maximum oil capacity—guaranteed. As long as you keep the oil level a quart or two above the 50% point, your engine will be happy.

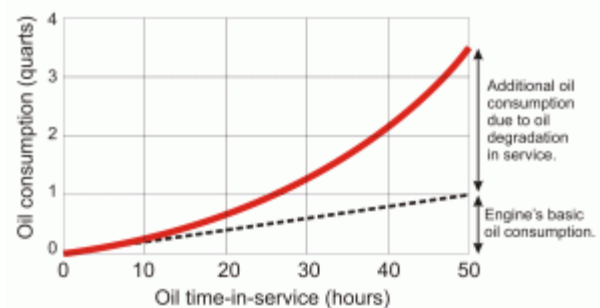
The best time to get an accurate dipstick reading is just prior to the first flight of the day. If you check the oil level shortly after the engine has been run for awhile, the dipstick reading will be noticeably lower because a significant quantity of oil remains adhered to various engine components. Another reading taken 24 hours later will often show an oil level that is ½ to 1 quart higher.

Oil consumption?

Having assured yourself that there's enough oil in the engine, your next task is to make note of how much oil your engine is using. Keeping track of oil consumption—particularly any significant increase in oil consumption rate—is an important tool for monitoring engine condition.

The most common method of measuring oil consumption is to record how many quarts of make-up oil are added between oil changes, and to divide the total by the number of hours in the oil-change interval. (For example, if the oil is changed after 50 hours and 6 quarts of make-up oil were added during that time, the average oil consumption rate is 50/6 or 8.3 hours per quart.)

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However, this approach obscures the fact that oil consumption is not linear over the oil change interval. If you keep track of when you add each quart of make-up oil, you'll find that less oil is

consumed at first, and progressively more oil is consumed as the oil's time-in-service increases.

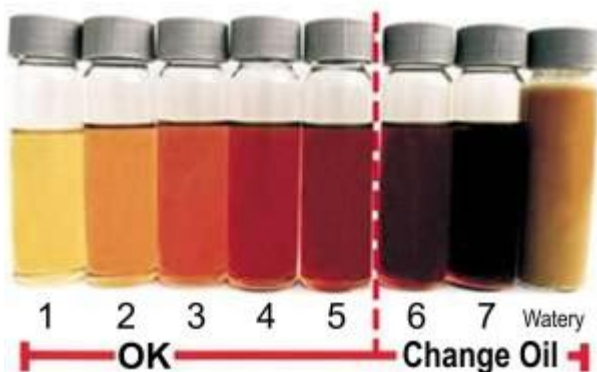
The reason for this accelerating oil consumption is that the viscosity of the oil decreases as the oil deteriorates. Mineral oils lose viscosity due to a phenomenon called "polymer shearing" in which the long organic molecules are actually broken apart by mechanical action of the engine's moving parts. Multigrade oils also lose viscosity because their viscosity-index improvers oxidize when exposed to high temperatures.

The increased rate of oil consumption provides tangible evidence that your engine oil is getting "long in the tooth" and ought to be changed soon.

What does your oil look like?

Whenever you check the dipstick, it's also important to make note of the oil's appearance—particularly its color and clarity. The oil's appearance offers valuable clues to its condition and that of your engine.

Color and transparency are important indicators of engine condition. When oil becomes dark and opaque, it should be changed. If this happens rapidly, it suggests that the engine has too much blow-by past the rings, or that oil temperature is too hot.



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Fresh engine oil has a light amber color and is so transparent that it's sometimes hard to read the dipstick level. As the oil remains in service, it gradually darkens in color and becomes progressively more opaque.

The darkening of engine oil is caused by contamination and oxidation. Contaminants include carbon (soot), lead salts and sulfur from combustion byproducts that get past the compression rings and into the crankcase ("blow-by"), as well as any dust or dirt that gets past the induction air filter. Oxidation of the oil occurs when it is exposed to high localized temperatures at it circulates through the engine, and results in the formation of coke. Various oil additives are also vulnerable to oxidation, particularly the viscosity-index improvers used in multiweight oils.

Dispersant additives are blended in the oil to help keep these so-called "insolubles" in suspension in order to keep the engine clean and minimize sludge deposits. As the quantity of insolubles in suspension increases, the oil darkens and becomes opaque.

It is important to note how quickly this darkening occurs. If your oil remains relatively light-colored and translucent after 25 hours in service, you can be reasonably confident that your cylinders and rings are in fine condition and that your oil can prudently remain in service for 40 or 50 hours. On the other hand, if your oil gets dark and opaque after 10 or 15 hours, you'd be wise to change your oil more often—perhaps at 25 hours—and you may want to investigate the possibility that one or more cylinders are excessively worn.

Such rapid discoloration is often a good indicator that the oil is distressed. In one study, 90% of oil that appeared abnormally dark on the dipstick was subsequently found by laboratory analysis to be non-compliant with required specifications. Oil that is dark and opaque from blow-by past the rings is very likely to be rich in acids and other corrosive compounds that can attack your cam and lifters, and that's probably the #1 cause of engines failing to make TBO. Any time your oil appears dark or opaque, you would be wise to drain it and replace it with fresh oil and a new oil filter, regardless of the oil's time-in-service.

Mike Busch is arguably the best-known A&P/IA in general aviation, honored by the FAA in 2008 as National Aviation Maintenance Technician of the Year. Mike is a 7,500-plus hour pilot and CFI, an aircraft owner for 45 years, a prolific aviation author, co-founder of AVweb, and presently heads a team of world-class GA maintenance experts at [Savvy Aviator](#). Mike's book *Manifesto: A Revolutionary Approach to General Aviation Maintenance* is [available from Amazon.com](#) in paperback and Kindle versions.

AOPA VFR Personal Minimums Contract

<https://www.aopa.org/-/media/Files/AOPA/Home/Pilot-Resources/Personal%20Minimums%20Contracts/PersonalMinimumsContractVFR>

“Personal minimums and decision-making criteria are best defined on the ground, free of external pressure and the workload of flying the aircraft. Writing them down makes it much easier to resist the temptation to “mentally negotiate” yourself into a tight spot, allowing your decision making to be clouded in the heat of the moment by emotion and hope. This document defines the contract you make with yourself, your passengers, and your family. Remember to update your personal minimums regularly to reflect your current proficiency in the aircraft you’ll be flying.”

OPPORTUNITIES

Nothing this month.

MISCELLANEOUS

FAA issues final rule on Small Airplane Safety Certification

https://www.faa.gov/news/press_releases/news_story.cfm?newsId=21254

December 16, 2016

Contact: Alison Duquette or Les Dorr

Phone: (202) 267-3883 email:

Alison.duquette@faa.gov

Rule will streamline approval of new technologies

WASHINGTON – The U.S. Department of Transportation’s Federal Aviation Administration (FAA) today issued a final rule that overhauls the airworthiness standards for small general aviation airplanes. This innovative rule will reduce the time it takes to move safety enhancing technologies for small airplanes into the marketplace and will also reduce costs for the aviation industry.

“Aviation manufacturing is our nation’s top export and general aviation alone contributes approximately \$80 billion and 400,000 jobs to our economy,” said U.S. Transportation Secretary Anthony Foxx. “The FAA’s rule replaces prescriptive design requirements with performance-based standards, which will reduce costs and leverage innovation without sacrificing safety.”

FAA’s [new Part 23 rule](#) (PDF) establishes performance-based standards for airplanes that weigh less than 19,000 pounds with 19 or fewer seats and recognizes consensus-based compliance methods for specific designs and technologies. It also adds new certification standards to address general aviation loss of control accidents and in-flight icing conditions.

“The rule is a model of what we can accomplish for American competitiveness when government and industry work together and demonstrates that we can simultaneously enhance safety and reduce burdens on industry,” said FAA Administrator Michael Huerta.

The rule responds to the FAA Modernization and Reform Act of 2012 and the Small Airplane Revitalization Act of 2013, which directed the FAA to streamline the approval of safety advancements for small general aviation aircraft. It also addresses recommendations from the FAA’s 2013 Part 23 Reorganization Aviation Rulemaking Committee, which recommended a more streamlined approval process for safety equipment on small general aviation aircraft.

The new rule also promotes regulatory harmonization among the FAA’s foreign partners,

including the European Aviation Safety Agency (EASA), Transport Canada Civil Aviation (TCCA), and Brazil's Civil Aviation Authority (ANAC).

This harmonization may help minimize costs for airplane and engine manufacturers and operators of affected equipment who seek certification to sell products globally.

The rule affects airplane manufacturers, engine manufacturers, and operators of affected equipment. Click [here](#) to learn more from the FAA and industry about the benefits of streamlined certification.

This regulatory change is a leading example of how the FAA is transforming its Aircraft Certification Service into an agile organization that can support aviation industry innovation in the coming years.

The Service is focused on using risk-based oversight to refresh the certification strategy, investing in management systems to improve performance, and improving the overall organization.

The rule will be effective eight months from publication in the *Federal Register*.

CLASSIFIED

On-line resources for buying and selling aircraft:

<http://www.trade-a-plane.com/>

<http://www.barnstormers.com/>

<http://www.aso.com/>

<http://www.globalplanesearch.com/>

1976 PA-28-140 For Sale

3,625TT, 1,100 SMOH, 267 SPOH

Excellent maintenance, paint 7, interior 8

Full logs, speed mods, VG's, digital nav/coms,

DME, VFR GPS, S-TEC A/P, hangered at PWA,

Annual due 12/2017, \$38,500

Chip @ piperflyer76@hotmail.com 832-453-2892



If you wish to list an item for sale, please contact the newsletter editor at piperflyer76@hotmail.com

Fun Places to Fly Within 100 Miles of Oklahoma City

Annie Okie's Runway Cafe - Bethany, OK (8 miles)

Right under the control tower. There is a great view of the runway. Good food! Monster cinnamon rolls. Oven-baked omelets. Daily lunch specials. Monday through Saturday 7am-3pm. Sunday 8am-3pm.

Echo Canyon Resort - Sulphur, OK (13 miles)



The brochure accurately describes this wonderful place as a beautiful resort specializing in romantic luxury lodging and fine dining. It is located on 30 acres in the Arbuckle Mountains, and is owned and beautifully managed by Joe and Carol Vanhorn, two of the finest folks you will ever meet. I have spent a weekend in this wonderful property, and I highly recommend Echo Canyon Resort. I have also flown to the resort to enjoy Carol's wonderful breakfast. If you call ahead, Carol or Joe will have you picked up at the airport by one of their friendly staff. Give them a call.

Ozzies Diner - Norman, OK (13 miles)

On airport home-style diner with airport view. All you can eat breakfast! Come hungry.

Libby's Cafe - Goldsby, OK (19 miles)

A great little country cafe with a big menu. Relatively inexpensive but good food. Live music on weekends, usually in the evening. Just a short walk across the interstate overpass from the airport...you can see the sign for Libbys, just look west. Libbys will usually come pick you up if you need a ride. Hours: TUESDAY through THURSDAY, 6AM to 12AM, FRIDAY and SATURDAY, 7AM to 2AM, SUNDAY, 9AM to 3PM. CAFE CLOSED MONDAY. Map: <http://www.libbyscafe.com/images/map2.jpg>



Oklahoma Antique Airplane Association Fly In - Pauls Valley, OK (49 miles)



The Oklahoma Antique Airplane Association has a monthly meeting/fly in at or club house on

the northwest corner of the PVJ field, once a month on the first Saturday. Come join in on the fun! You don't have to fly an antique in, we have cars, motorcycles, and every kind of airplane old and new. We eat about 11:30 to 12:00 and have burgers hot dogs and in the winter chili and Cajun food.

Thomas P. Stafford Airport - Weatherford, OK (63 miles)

Weatherford's airport hosts the outstanding Thomas P. Stafford Museum, memorializing the NASA space program and General Stafford's contributions including the Apollo-Soyuz program. Weatherford is a thriving college town that can easily be explored with one of the airport's courtesy cars. Fuel is relatively inexpensive too. One of our favorite stops!

ADM Pancake Breakfast - Ardmore, OK (75 miles)



Fly-In Pancake Breakfast. Every second Saturday 08:00 to 10:00 in the Hanger directly behind the control tower. Sponsored by Lakeland Aviation. Free to all, donations are accepted. Come enjoy breakfast and great fellowship with old friends and make some new one! See you there.

Lake Murray State Park & Lodge - Overbrook, OK (75 miles)



Lake Murray State Park has an Air Strip right next to a beautiful golf course. Go into the golfing shop and call the Lake Murray Lodge and they will come pick you up. Great place to eat and spend the night.

Enrique's - Ponca City, OK (95 miles)

Enrique's is on the field in the terminal building. Great Mexican food. There is a self service 24 hour pump for 100LL that takes CC. The Ponca City Aviation Booster Club holds a fly in breakfast there the first Saturday of each month.



Ponca City Aviation Boosters - Ponca City, OK (95 miles)

Ponca City Aviation Booster Club hosts a breakfast flyin the first Saturday of each month. For \$7.00 for adults and \$3.00 for kids you

have all you can eat pancakes, eggs, biscuits and gravy, smoked sausage, bacon, fruit, fruit juices and coffee. Chapter members report there were over 500 in attendance in February! The price was raised from \$5 to \$7 to offset rising food costs.

Over 100 Miles from Oklahoma City

**Pioneer Flight Museum, Kingsbury, TX
(~350 nm South)**

<http://www.pioneerflightmuseum.org/>

Name: Old Kingsbury Aerodrome Airport

Identifier: 85TE

Elevation: 560

Location: N29° 38.038' W97° 48.685'

Runway: 14/32 Grass

Length: 2600 ft.

Caution: Towers on West side of field

Caution: Radio Controlled Model Aircraft Traffic

CHAPTER 24 CONTACTS

President	Jim Putnam	Class I Director	405-359-9692	Jim.putnam@sbcglobal.net
Vice-President	Brian Lindsey	Class I Director	405-315-4522	Flyinb2632@att.net
Secretary	Dan Burdette			
Treasurer	Steve Schmitt	Class III Director	405-831-4470	sgmaschm@yahoo.com
Past President	Herb Driskill		405-834-2124	hdriskill@aol.com
STAFF				
Young Eagles Coord.	Pat Cohenour	Class II Director	405-495-1612	patricktc@cox.net
Newsletter Editor	Chip Heinol			piperflyer76@hotmail.com
Membership Coordinator	Steve Schmitt		405-831-4470	sgmaschm@yahoo.com
Technical Counselor	Gale Braden	Class II Director	405-517-5665	galebraden@cox.net
Technical Counselor	Gary Manning	Class III Director	405-793-1090	manning54@atlinkwifi.com
Technical Counselor	Herb Driskill		405-834-2124	hdriskill@aol.com
Technical Counselor	Larry Hinton		405-794-0079	Ljhinton1@cox.net
Technical Counselor	John Myers		405-793-7125	john@flyingmbranch.us
Technical Counselor – New!	Dennis Fox		580-471-8332	dfox492000@yahoo.com
Flight Advisor	Larry Eversmeyer		405-261-0270	larry.eversmeyer@gmail.com

Disclaimer:

The Oklahoma City, OK, EAA Chapter 24 is an official chapter of the Experimental Aircraft Association, Wittman Airfield, and Oshkosh, Wisconsin 54903-3086. Phone (414) 426-4800.

Chapter 24 was organized to promote aviation in the community, provide camaraderie, sharing of aeronautical knowledge and skills among those with interest in grassroots aviation and who share the objectives of the Experimental Aircraft Association.

Chapter membership is open to everyone, however our by-laws require that chapter members also be a member of the EAA national organization. Chapter dues are \$15.00 per year, payable on January 1.

Normally our meetings are held on the second Thursday of the month at 7:00 PM at Sundance Airport (KHSD) 1300N Sara Rd, Yukon, OK 73099. Time, date and place is subject to change. Please check your newsletter for current meeting information.

Newsletter Information: EAA Chapter 24 publishes the newsletter once a month. Its purpose is to inform. Members are encouraged to submit aviation and member related articles to the newsletter editor.

To submit articles, photos or other items for the newsletter as well as ideas, suggestions and corrections, contact: Chip Heinol at piperflyer76@hotmail.com

If you are receiving this newsletter and are not a Chapter 24 member but would like to become one, please call or write to Steve Schmitt and he will send you an application. If you are a current EAA National member then all the Chapter requires is your completed application and \$15.00. We could use you as a member but member or not you are still welcome at our meetings.