

PASO ROBLES PILOT



Monthly Newsletter of EAA Chapter 465- www.EAA465.org

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Next Meeting on February 6 @7pm
Upstairs in the Terminal Building

Presidents Message

By Ralph Richards

Welcome to the summer of 2014, skipped right over winter and spring. But for pilots the weather is perfect. This month's meeting is Thursday the 6th. David Fretwell will be giving a presentation on AOPA's flight planning. I really appreciate our Chapter members stepping up to give presentations. I am looking forward to Ralph's second part of his presentation on the history of the LA valley. See you at the meeting.

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Editors Message



The Ten Biggest Lies about Piston Engines

We came across another great article from Mike Busch. This was written a while ago, but is very interesting and in keeping with our theme of engines this month.

Lie #1: Lycoming Engines are better than Continental Engines

Here's what these engines have in common: 1) Similar design and metallurgy, 2) horizontally-opposed air-cooled designs with bolt-together aluminum case halves and bolt-on cylinders with sandcast aluminum heads screwed onto nitrided steel barrels, 3) fixed-timed dual magneto ignition systems, and valve trains with overhead rocker arms, shrouded hollow pushrods, and hydraulic valve lifters, 4) similar compression ratios, similar RPM red-lines, and similar power-to-displacement ratios. And both have comparable records of reliability and longevity.

Says Mike Busch, "Certain problems tend to occur more frequently in one brand or the

other. **Continentials** have a lot more crankcase cracks, head-to-barrel separations, and premature valve guide wear problems than Lycomings. On the other hand, **Lycomings** suffer stuck and broken valves and spalled cams and lifters much more often than Continentals."

Lie #2: Turbocharged Engines are troublesome, inefficient and costly

This might be true if operated incorrectly. But if operated properly and at higher altitudes, they are extremely reliable and cost on average \$10/hr more than a non-turbocharged engine.

Lie #3: Multi-viscosity oils offer superior engine protection and longer engine life than single viscosity oils

Multi-vis does NOT provide better protection than single viscosity oil. The reason is that multi-vis oils are made by starting with a thin, single-weight oil stock and adding man-made polymers called "Viscosity Index improvers", that increase viscosity as temperature increases. However, such VI improvers are not lubricants. There's more oil in a quart of single-vis than multi-vis.

The best protection is to fly regularly, duh? Have you heard that before?

Lie #4: If you can't fly regularly, at least turn the prop by hand every week

Does this "redistribute the oil?" Sure it does! It scrapes oil off the top of the cylinders and accelerates its flow downhill. The same is true of cam lobes and lifters.

Lie #5: The less oil an engine burns, the better

For a cylinder to make it to TBO, it must be protected from metal-to-metal scuffing by the piston rings. This protection comes from a film of oil that coats the cylinder barrel and causes the rings to "hydroplane" instead of scuffing the barrel.

Now, if the cylinder barrel is properly coated with oil, it's inevitable that some of this oil will be

burned up in the combustion process. That's why a certain amount of oil consumption is perfectly normal.

Lie #6: The cooler the engine oil and cylinder head temps, the better

Oil temperatures lower than 170°F present a different problem...namely, that the oil is probably not reaching the boiling point of water at the hottest point in its travel. Why is this important? Every time we shut down the engine, a slug of water condenses inside the cooling engine and runs down into the oil sump. If we don't get rid of this water the next time we fly, there will be a progressive water build-up inside the engine. That water will mix with the sulfur and nitrogen byproducts of combustion to form sulfuric and nitric acid. Regarding cool CHTs, ethylene dibromide doesn't do its scavenging job unless combustion temperatures are fairly high. That's why lead fouling problems tend to emerge when CHTs are below about 300°F.

Lie #7: Aggressive leaning results in burned valves and detonation

Lycoming has long authorized leaning to peak EGT at any cruise setting up to 75% power. TCM authorizes leaning to peak EGT up to 65%, and its latest recommendations endorse lean-of-peak operation for many big-bore engines, provided the engines will run smoothly when operated that lean.

Lie #8: It's bad to cruise at high manifold pressure and low RPM ("oversquare")

Operating at minimum RPM and maximum MP (within the allowable envelope) actually helps your engine last longer. Low RPM operation provides numerous benefits: better cylinder compression, lower frictional losses, improved propeller efficiency, cooler-running valves, lower EGTs and TITs, and a quieter cabin.

Lie #9: Continuing to fly an engine beyond the manufacturer's recommended TBO is dangerous, illegal, and could void your insurance coverage.

Published TBO has no legal significance for the majority of us who fly under FAR Part 91. Your aircraft insurance carrier could care less whether your engine is past TBO. Your policy simply requires that your aircraft and its pilot be legal under the FARs

Lie #10: A factory Reman is better than a field overhaul, because only the factory offers a true "zero-timed" engine.

A Factory Reman does come with a zero-time Logbook. When an engine is overhauled, you essentially have the same engine with new parts where the old parts were no longer serviceable. In a Factory Reman, parts are picked at random from the factory. You are only assured that they are serviceable. In short, the "zero-time" logbook that comes with a factory rebuilt engine in no way implies that the engine is "newer" or "better" than a field overhaul

Chapter 465 Minutes

January 9, 2014 Meeting Minutes

Meeting Called to Order - 7:10 PM by President Ralph Richards

Attendance – 8 Members attending, 1 Guest

Old Business – The January 2nd meeting was rescheduled to the 9th due to the New Year's Day Holiday as many members were out of town. The timing of a future chapter BBQ discussed. No date set. The Chapter will discuss a future fly out in March when the weather is better. The Chapter received a check from EAA National in the amount of \$509.05. This represents the Chapters share of the memorabilia sales for the B-17 event.

New Business – Now is the time to pay annual dues to EAA Chapter 465; \$20.00.

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Treasures report – No Activity; \$838.44 in the checking account

Flight Advisor Report – None

Technical Advisor Report – None

Safety Report – None

Project Reports – None

Program – Pete Johnson played a CD of the Paso B-17 event last summer. Then Ralph Herman gave a very interesting presentation on the history of the Tarzana Ranch; located northwest of the LA basin. Historical artifacts were shown. Ralph also presented a commemorative piece of wood siding from the Tarzana military radio shack to the membership. A couple of period mementoes are attached. Ralph has made these for others and it has been determined that the gift has a high value. The intent is to sell the item to bolster the Chapter's checking account. The members thanked Ralph for the gift and his generosity. Ralph will return and continue his presentation at a future date. Advance notice will be given to so all will have an opportunity to hear about the history of the Tarzana area.

Meeting Adjourned – 9:10





by Phil Corman

PRAA Update: [Click Here](#) for Details
[Click Here](#) to join the PRAA mailing list.

The PRAA will be having a General Meeting on March 12th at 6pm in the Airport Terminal. Please join us and help the PRAA and the Airport.

The PRAA will be working on the following projects for 2014.

- Ongoing Airport Business Improvement Plan
- Airport Security & Safety
- Airport Appearance & Cleanup
- Airport Friendly
- Airport Promotion & Marketing

Please join us in these efforts.

Please encourage your family and friends to join the PRAA by sending an email to philcorman@hotmail.com or [CLICK HERE](#) to join.

Our membership has is currently 260 strong. Please join and pass this along to others

interested in the airport.



Fly-In Events for this coming month **Quiet Winter**

EAA Information

EAA Member Benefits

- EAA Insurance - Aircraft, Non-Owner, Renters & Personal
- EAA Aircraft Financing
- EAA Flight Planner
- Discounts on FAA written tests at LaserGrade
- EAA credit card 10% savings from Aircraft Spruce

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- You can save 'hundreds – even thousands – of dollars' on your next Jaguar or other Ford car
- You can buy your John Deere Tractor for less money
- EAA has discounts for Hertz and Enterprise car rentals

Interesting EAA Chapter Web Sites

EAA Chapter 1 at Flabob www.eaach1.org

EAA Chapter 7 at Long Beach www.eaa7.org

EAA Chapter 14 at San Diego www.eaa14.org

EAA Chapter 1000 at Muroc www.eaa1000.org

EAA Chapter 170 @SLO

www.eaa170.blogspot.com

PRB Websites

Paso Robles Airport Association

<http://www.prb-association.com>

Paso Robles Airport

www.pasoairport.com

EAA CHAPTER 465 MEMBERSHIP APPLICATION/RENEWAL

Chapter membership dues are \$20/yr. Please help us to verify your personal info.
 Members with e-mail will receive the chapter newsletter via e-mail for their review.
 Members without e-mail can receive copies of the newsletter by mail or at the meetings.
Return the completed form to the Chapter Treasurer, or any Chapter Officer.

Name: *(Please Print)*

Address *(Number, Street, City, State, Zip)*

Email

Home Phone

Cell Phone

Work Phone

EAA National Membership #

Expiration Date *(MM/YYYY)*

FAA Ratings

Student	<input type="checkbox"/>	Glider	<input type="checkbox"/>	Tailwheel	<input type="checkbox"/>	CFI	<input type="checkbox"/>	A&P	<input type="checkbox"/>
Light Sport	<input type="checkbox"/>	ASEL	<input type="checkbox"/>	Seaplane	<input type="checkbox"/>	CFII	<input type="checkbox"/>	IA	<input type="checkbox"/>
Private	<input type="checkbox"/>	Multi	<input type="checkbox"/>	Instrument	<input type="checkbox"/>			Avionics	<input type="checkbox"/>
Commercial	<input type="checkbox"/>	Rotocraft	<input type="checkbox"/>					Other	<input type="checkbox"/>
ATP	<input type="checkbox"/>								

Aircraft Project Underway

I need help in:

Selection Design Construction Other

Aircraft Now Owned

Newsletter: I prefer to receive my newsletter via e-mail , printed via U.S. mail , or at meeting

Special Skills *(That might be helpful to members)*

Payment Enclosed \$20.00

Make checks payable to **EAA Chapter 465**

Please mail this form with payment to:

EAA Chapter 465, c/o Dale Ramey
 7460 Pinal Ave
 Atascadero, CA 93422

Or bring with you to any Chapter meeting

<http://www.eaa465.org/site/index.php>