



Runway 15



The Monthly Newsletter for Experimental Aircraft Association Chapter 1541, Lincoln, California

In This Issue

Calendar of Events	1
EAA 1541 Chapter Information	1
President's Corner	2
2022 Holiday Party	3
Project Updates and Adventures	4
Flying Companion Seminar coming	9

On the Horizon: Calendar of Events

For the most up-to-date information, go to the chapter website: <http://eaa1541.org/>

Date	Topic
Thursday, January 5, 2023 7-8 pm	Online IMC/VMC club meeting. FAA Wings credit available. Link to join will be sent via e-mail to chapter members.
Saturday, January 14 8 – 10 am	Second Saturday Pancake Breakfast at the EAA hangar
Saturday, January 21	KLHM Vintage Aircraft Display day 8:00 a.m. – noon KLHM main ramp
Saturday, January 28	Fourth Saturday lunch and program at the EAA hangar

EAA CHAPTER 1541 INFORMATION

Meetings	Usually the second and fourth Saturdays of each month held at KLHM Hangar S-12. Details available on the
----------	--

	website.
E-mail	eea1541@gmail.com
Website	https://eaa1541.org
Mailing Address	EAA chapter 1541, PO Box 1126, Lincoln, CA 95648
Chapter Hangar	Hangar S-12, Lincoln Airport
President	Jim Hughes
Vice President	Dan Masys
Secretary	vacant
Treasurer	Scott Whelan
Chapter Board of Directors	Cheryl Andrade Paul Darbo Christina Duran Michael Lagomarsino Lesa McArdle Ray McNaught Lorin Ponton Mary Wick
Web + Newsletter Communications and Tech Counselor	Dan Masys Send messages to Dan at eea1541@gmail.com
Membership	Chapter dues: \$30 per year for individuals and families; \$300 for gold



President's Corner



It is December and my short term, over the last 4 months as President, is up.

The most notable event this year was the October, Lincoln Airport Open House, which was organized

by chapter member and city treasurer Richard Pearl. We had run one and supported another airport event like this, so we knew what needed to be done.

Four of our members organized ramp teams and enlisted 20+ of our members to marshal display aircraft, guide the display cars, provide ramp security, gave 100 Simulator flights, and cooked hundreds of pancake breakfasts, with the help of about 10 of the Sutter Buttes 99s.

This event would not have happened without our chapter volunteers, since we are the largest aviation group at Lincoln, with 150 members, and have the resources necessary to support an event of this size, which had 5,000 people attend. We are fortunate to have these experienced pilots who know what to do and how to get things done with the safety of all in attendance of paramount importance.

In April, we invited Bud Anderson, WW2 fighter ace, to give us a talk on his flying career. We hope to have him back again this Spring. He is the last of the WW2 triple ace pilots, at 100+ year old.!

You have recently voted in a new group of officers and board this month for the 2023 – 2024 term, as we also renew our chapter with EAA National. Scott Thompson is returning as President, while Dan Masys and Scott Whelan

will continue as VP and Treasurer, respectively. I will fill the Secretary position. The board will continue with the addition of Cheryl Andrade, replacing Mike Iagomarsino, who is leaving the board.

Scott has already gotten a number of presentations set up, starting at the January 14th Saturday lunch. So, next year, there will be more reasons to join us at our Saturday meetings.

Our December Holiday Christmas Party at Cattlemens was a fun time, even with the small group that attended. See Scott Thompson's article on it below.

Besides the silent auction and raffle, we presented our first lifetime memberships to long time members Dick Rupe and Bruce Estes, with a platinum badge to signify their new status in our chapter.

There was a video on 'the 2022 Year in Review' created by chapter member Tom O'Hair, which we have posted on our website for all to watch.

I am looking forward to next year, with all the new individual and family members that joined this year. We need all of our members to offer suggestions on what new activities are of interest to them, and maybe pitch in to help with setup, cooking and cleanup after our meetings, while some of us are flying Young Eagles.!

See you at the next meeting,
Jim Hughes



2022 Holiday Party



The chapter held its Holiday Party on Thursday evening, December 15, at Cattlemens Steakhouse in Roseville. We had about thirty people in attendance both members and their families. The evening was filled with good food, good talk, and a time to just relax and enjoy some hangar flying.



But, besides that, chapter president Jim Hughes noted that EAA Chapter 1541 just celebrated its

ten-year anniversary...it was organized in October 2012. The chapter has come through the past few difficult years in better shape than it went in. We stand at about 150 members, probably the largest chapter in the area, and we remain active with pancake breakfasts, barbeque lunches, special events, youth scholarship programs, IMC/VMC club support, to name just a few.

The chapter took the occasion to award Lifetime Memberships to chapter stalwarts Dick Rupe and Bruce Estes for their continual contributions and long-standing status in Chapter 1541.



Guests of Honor Bruce Estes (left) and Dick Rupe (far right) with Tony Kasabasich and spouses.

We also took the opportunity to introduce the chapter officers and Board of Directors for 2023-2024 term.

Chapter member (and unofficial city of Lincoln liaison) Richard Pearl announced that the chapter generated a substantial \$2,016 for its efforts at the Airport Open House held in October. Richard pointed out the success of the Open House not only to the local community but also to the Lincoln city leaders. There is newfound awareness of the value of the airport to the city and region, and Chapter 1541 contributes greatly to that awareness.

Another highlight of the evening was the silent auction and raffle, organized and run by Lesa McArdle, Lorin Pontin, Christina Duran, Shirl Whelan, and Amy Whelan. The chapter received about \$400 in proceeds from the auction and raffle, and added another \$300 donation from an anonymous individual, one that will be doubled by a corporate sponsorship program. Thus, the evening's donations generated about \$1,000 for our chapter programs.



Guests look at Raffle and Silent Auction items



Lesa and Lorin conduct the Raffle

Running in the background for all to view on the silver screen was the excellent "Chapter 1541 2022 Year in Review" video program created by chapter member Tim O'Hair. It aptly showcased the accomplishments and events held by our chapter this past year, a year of adjustments and resumption of chapter activities after the COVID-19 interruption.



For those that missed the Holiday Party, that program is available on our website's Member Meeting Videos page:

<https://eaa1541.org/members/membership-meeting-videos/>

As we start 2023, we look forward to enjoying a new year full of aviation activities and, with any luck, more than a few special events. We look back at the success of the 2022 Holiday Party and recognize that it would not have happened without the solid volunteer effort made by many people. A volunteer organization necessarily needs volunteers, and the chapter thanks those who stepped up to help out.

Project Updates and Adventures

Mark Rieger writes:

N716CZ Trip Report
11/14/2022
Mt Shasta

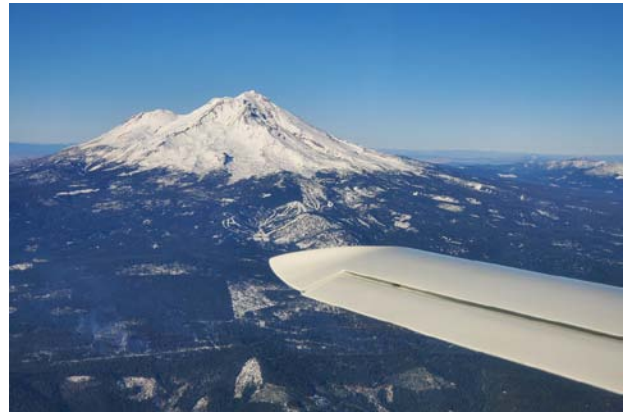
Since we were in a stretch of nice flying days, I decided on a sightseeing trip to Mt Shasta. The weather system the first weekend of the month had frosted the top with snow, so it was time to

go. There are a dozen peaks in CA just above 14,000 ft with Mt. Whitney the highest at 14,491 on the San Francisco Sectional and Shasta in 5th place at 14,162 ft. Shasta is considered an active volcano and shares the distinct conic profile of other mountains in the north pacific ring of fire like Mt Hood in OR and Rainier in WA.

As I was flight planning the 170 mile one way trip, I noticed there was an off airport ASOS about 8 miles to the southwest of the mountain in the small town of, you guessed it, Mt. Shasta. The town is located at 3,500 ft elevation so I called the ASOS number and learned that skies were clear and winds were light. So, off we go departing Watts-Woodland O41 to the north and climbing to 8,500 ft.

I picked up flight following from Travis Approach and was quickly handed off to Oakland Center. I use the Flightbox Stratux for ADS-B In and Wx. I have this permanently mounted on top of one of my radio stacks drawing power from a 5V bus supplied by the 5V out pin on my Appareo ESG. Using the altitude slider on my FlyQ EFB, winds were 6 kts out of the NW at that altitude.

At the north end of the valley and 40 miles south of Shasta you hit the Sierra mountains so I climbed to 9,500 ft for smoother air. Then about 20 miles out, with the O2 cannula seated, I climbed to 10,500 ft and set up for the money shot. I flew northeast to minimize glare on the canopy, turned the autopilot on and of course tried to get the canard in the right place.



Mt. Shasta over the canard

I've been flying over 20 years in CA in planes I didn't own and never got a chance to do this. It was worth the wait and made even sweeter doing it in my plane.

Mark Rieger
N716CZ
Cozy MKIV



Ray McNaught and tech counselor Dan Masys started building Ray's RV-12iS on July 19th of this year, and marked the five month anniversary of the project by mounting the main landing gear and getting the fuselage up on its own wheels.

The wings and tailcone with empennage were rolled out from storage and positioned for the next step, which will be assembly of the major airframe components. With cowling now done and engine installation complete, the finish line is beginning to appear in the distance!

Tom Folkerts writes:

Eleven hours on the tach. That's how long it took for a seemingly healthy #1 cylinder on my '63 Mooney M20C to go south after my annual inspection was completed in October of this year. I've been lucky to be an airplane owner since 1987. I had not been cursed with cylinder work, ever. But my cylinder saga doesn't start with this year's annual. So first, a little background. This is my Mooney:



My Dad bought her when I was a junior in high school, in February, 1973. She was hangared in a steel quonset built for corn storage and my Dad put in a 1/2-mile long farm strip.

He gave up his medical in 2008 and converted to light-sport flying an Aeronca Chief. I bought her and I flew her to CA that fall. It will be 15 years I've had her next September. My Dad flew it all over the country, Rhode Island, San Diego, Rancho Murieta (when I was stationed at Mather) Grand Forks, Biloxi. All with my Mom in the right seat.

This reminds me, I need to fly more!

My story-with-a-lesson started with the annual inspection in April, 2020. The (hot) compression checks were all mid-upper 70s/80, except #3 cylinder was in the low 60s. I hadn't drained the oil yet, so I pulled the airplane back out to run it up and see if maybe the compression ring gaps had aligned and that was the reason for the low compression. After the run, the compression had come up to 68/80, which was good enough where I thought I could finish the annual inspection and recheck

the #3 cylinder again in 10 or 15 hours of tach time. I had a cheap borescope, but it didn't articulate so I really couldn't see anything nefarious going on with the valves. What I could see in the cylinder looked fine. I pulled the exhaust for inspection and when I looked up into the exhaust port on #3, I see a chunk missing from the valve guide:



Well, then... that's not good. That cylinder is coming off.

Once the cylinder was off and I could get a direct visual on the exhaust valve, I saw the green spot on the valve edge indicating the valve had (most likely) stopped rotating and a hot spot developed. The stem mushroomed enough to break a chunk out of the valve guide.



Hot spot (greenish in color) at 8 o'clock on the #3 exhaust valve face.

The #3 cylinder was overhauled, annual inspection signed off, and the airplane back flying in July.

Fast forward two years to the annual inspection in August of this year. I had accumulated a little over 60 tach hrs on the topped #3 cylinder, an oil change at 10 hrs and another oil change at 35 hrs. The filter pleats, sump screen, and oil analysis were all normal at both oil changes. Nothing to fear, going into this annual inspection, right?

Famous last words.

I flew the airplane on 31 July prior to the annual expiring at midnight. Compression checks were all in the 70s/80, except for #2 cylinder, 36/80. I now had access to a quality borescope (on loan from Dubs) that he purchased after the excellent review by Dan Masys.

A green hot spot on the #2 exhaust valve was obvious. I pulled the cylinder and sent it off for overhaul.



Now it is cylinder #2's turn

The engine shop reported back that the head was cracked. These are first-run cylinders, about 1200 hrs SMOH. I hadn't anticipated a cracked head. The shop replaced it with a serviceable barrel. I put the airplane back together and the annual was signed off in October. I resolved that anytime I was doing an oil change, I was going to do compression checks and borescope the cylinders.

I reached 11 tach hours on the overhauled #2 cylinder the Wednesday before Thanksgiving Day. True to my commitment, I did hot compression checks as the oil drained. All cylinders were in the mid-upper 70s/80, except now the **#1 cylinder** was 51/80. Air could be heard in the exhaust pipe. Great, just GREAT! Here is a picture of the #1 cylinder exhaust valve from the August 2022 annual (compression 70/80):



Cylinder #1 kind of dark but symmetrical in August

The #2 cylinder had been broken-in running at 75% power the first hour, then alternating between 65% and 75%. Fuel flows were per the owner's manual for altitude, manifold pressure, and RPM. I'm not sure what turned the #1 cylinder valve face dark like that... rich mixture used to break in the #2 cylinder? (I'm not an engine expert.)

Anyway, below is the borescope picture of the same #1 cylinder valve only 11 tach hours later, beginning to show the telltale asymmetry and green color in the two o'clock position:



I consulted an engine expert (a Savvy Maintenance consultant) and he suggested the valve lap/rope trick might be worth a try. I read up on it and watched the Mick Busch video... let's give it a try.

Before I started, I did another cold compression check. It was only 15/80. I figured, at this point, I have nothing to lose. After the valve lap procedure, the compression check came up to 26/80. I think the head is cracked. When it's hot, it closes up pretty tight. When cold, leaks like a sieve. I pressurized the cylinder with shop air and sprayed some soapy water on the head, but didn't detect any bubbles. When I had the valve springs off, I could see how sloppy the valve stem was in the guide. I don't have the tools to do a wobble check, though. Spruce sells it... and it is Christmas time. Santa?

Once I had the #1 cylinder off, the piston compression rings and oil control ring looked great for a just-past mid time cylinder. No blow by at all. I'll be curious to hear what the engine shop reports.

The takeaway from my saga? Every opportunity you have to assess the health of your engine, do it. It was only 11 tach hours between a healthy cylinder and one quickly headed down hill. Would the #1 cylinder have lasted another 80 or 90 tach hours and 11 months to the next annual? Or would it have blown the head off over inhospitable territory. I'm glad I discovered the failing cylinder sooner rather than later.

And, I'm watching my #4 cylinder like a hawk.

Fly safe!

Thomas Folkerts
EAA 206638



Join Us Sunday
February 12, 2023 for...

Early Bird Registration
ends Jan 1, 2023
\$99

FLYING COMPANION SEMINAR



Hosted by the Sutter Buttes Ninety-Nines Chapter
@ The Lincoln Regional Airport

Have you ever wondered what to do if your pilot became ill or unable to fly?

Have you wanted to know more about the decision making your pilot makes before and during a flight?

Are you curious about aviation but not ready to leap into flight and/or ground training just yet?

Sign up for this session made just for you!

Scan this QR code
to register!



Happy Flying!

