

Wing Flap

Monthly Newsletter of the EAA Chapter 52
Sacramento, CA - **December 2021**

**Experimental
Aircraft
Association**



FROM The Left Seat - Gill Wright

Merry Christmas everyone, it has been quite a year on many different fronts. When we gathered for our annual Christmas meal, we had over 32 people come and attend, though some did have to leave early before we got to the annual Christmas Gift Exchange. In planning, I thought there would be 20-25 attending, but the community taught me something different this year, and I'm delighted we seem to be emerging from the shadows of the last 22 months.

As we gathered in our conversations and fellowship of aviation, I reflected on how in February of 2020 we had 72 people attend the EAA Leadership Boot Camp in that very room. The intended goals and momentum from that event had been dissipated with COVID, and yet it felt like we were rekindling that spark again for the coming New Year of 2022.

Time will tell if that is true or not, but given the many efforts, and projects we have in motion to support the youth of our community to grow in aviation, I think we will be surprised where we will be by next year's Christmas dinner. Jim Heffelfinger is making great strides in growing a situational awareness of aviation at the Pleasant Grove High school program. The impediments of distance learning, and ZOOM visits, have become an opportunity to build relationships that will blossom when the personal contact is allowed, hopefully later this coming spring.

Our Ray Scholarship efforts, lead by Owen Hughes, is really quite miraculous to see where all of our Scholars are progressing in their lives. Cedric Hughes is thriving in college and intending to continue with his flight training. Carson Ballou has just passed his written IFR test, and looks to complete his IFR Check Ride sometime this spring. Isai Villanueva is intending to start college next fall in an aerospace engineering pathway that could take him into the Solar System in the decades to come. Lilah Harris has begun her flight training, and Nick Theodorovic is working to complete his PPL ground school by February, and get his drivers license, so he can get to the airport on his own when the time is right for him to begin the journey of flight.

It is really amazing to see how our Chapter 52 village is growing forward in these unique times. Our village is aging, yet willing and committed towards building the future, and being the wind under the wings of our youth. That is where the Spirit of Aviation truly lives as we create a healthier tomorrow.

Thank you all for your efforts and support of what Chapter 52 is. Have a merry Christmas and a safe New Year with your families and friends.

Gill Wright, President EAA Chapter 52

FROM The Right Seat - Jim Hefelfinger

As we move into the new year uncertainty continues at least into Q3- 2022. There are hopes to have local and regional events to attend and in person meetings which are the life of any chapter. Gil mentioned the pretty well attended Holiday Party but there were a number of the “usual suspects” not there as well. We hope you still consider the chapter a part of your social network and use the technical expertise that we have within our membership into the new year.

Plans for 2022 will include a concerted effort to reestablish our prior members and recruit new ones. The chapter needs to spread the load for leadership as well; so we can continue to support the outreach and internal functions of the organization. Expect to see a chapter survey in Q1 to get a pulse of your wants/needs for chapter functions and events.

Pleasant Grove HS (EGUSD) Aviation Club continues into the new year with visits by a number of “what’s next” education opportunities and employers. Having me on campus has revitalized the program and interest by the students.

As this will be published closer to the new year I will be on vacation in Belgium visiting family – flying into a 4th wave of infections in western Europe. My personal hope is that if you are not vaccinated and boosted please do so. This is not the “first in the world” status I want nor the 800,000 of my fellow citizens.

Ray Scholarship Update – Owen Hughes

With a “use it or lose it” deadline of October 31st, we were in a tight spot. In September, I submitted Nicholas Theodorovic as our 2021 \$10,000 Ray Scholarship candidate. Nicholas has already begun ground school, and will be able to solo as early as February when he turns 16 years old. However, Nicholas is younger than the Ray Scholarship rules officially allow (you must be 16 and able to get your PPL within a year) and new management at EAA National said “NO” – with no wiggle room. Hopefully, we’ll be able to get Nicholas flying next year. But what now?

After consulting with VAA 25’s Ray Scholarship coordinator, Kim Owen, I met 16-year old aspiring pilot Lilah Harris at VAA 25’s Young Eagles event. The event itself was a tremendous success (see above) largely due to the dedicated efforts of volunteers like Lilah. After consulting with Gil (our honorable president) and Stan Lawrence (VAA 25’s Ray CFI), we decided to offer the scholarship to Lilah. We had to rush the application in that day very last day before we lost the scholarship – but with Stan, Gill, and Lilah’s hard work we got the application in and it was accepted by EAA National. Lilah has joined EAA 52, and will be contributing to our newsletter. I’m sure you’ll be delighted to meet her at our next chapter meeting. So, **Congratulations to Lilah Harris – our new Ray Scholar!**

I'll let her introduce herself:

Hello!

My name is Lilah Harris, I am a junior at St. Francis High School, in Sacramento California, and I am also the proud recipient of the Ray Scholarship from EAA Chapter 52.

I have been interested in aviation all my life, and it has been a dream of mine to get a pilot's license for a very long time. In late August, I became involved with EAA Vintage Chapter 25, and started participating in their Young Eagles Build, Maintain, Fly program on Saturdays. It has been an immensely gratifying experience thus far.

I have been able to work on maintaining and fixing various airplanes, as well as help with the construction of a Safari 400 helicopter. One of Vintage Chapter 25's leaders and CFI's, Stan Lawrence, has recently begun training me in a Cessna 150, and I am starting to log hours consistently.

In early November I was fortunate enough to be awarded with a Ray Scholarship from EAA Chapter 52. In the short amount of time that has passed since then, I have begun my flight training with Stan Lawrence. So far we have worked on taking off and landing, as well as the four basics of turning. With support from Stan, I am beginning to overcome my apprehension on the radio. I am very excited to continue my training. If the weather cooperates, Stan believes I will be able to solo by Christmas.

Aside from aviation, I spend my time painting, playing piano, listening to music, and helping my dad build an apartment.

Respectfully,
Lilah Harris



Letter from Steve.....



I would like to continue receiving the monthly newsletters from Chapter 52. I live in Virginia but still visit the Sacramento area a couple times a year. I keep hoping I'll be around for a meeting or pancake breakfast but so far that hasn't happened. Probably not too many of the current members remember me. I was the chapter president in the early 80s....maybe 83? I built a VariEze that first flew in 1981 and a Defiant that flew to Australia and New Zealand and back in 2010 and 2011. Chapter 52 had a hand in that adventure as they kindly let me use the Chapter hangar to prepare the Defiant for the long trip. During the covid shutdown I spent many hours restoring the VariEze to flight status and it is now flying like new. It is also for sale in case you know anyone that is looking. The picture is of my two planes outside my hangar at Leesburg, Virginia. I'm a long way off but still want to keep my connection with chapter 52.

Steve Sorenson

A quick pic from the Christmas Party!



Special Alert! 100LL Crisis in California-

The powers-that-be in Santa Clara County, California, have decreed that leaded avgas will no longer be available after December 31, 2021, at two busy airports that the County controls: Reid-Hillview Airport (KRHV) in San Jose and San Martin Airport (E16) 18 miles to the southeast. Starting on January 1, 2022, only unleaded avgas will be allowed to be sold at those two airports, and at present the only unleaded avgas available is 94UL.

Pleas by AOPA and the FAA for the County to delay this ban on leaded avgas until a viable 100-octane unleaded substitute fuel is available have fallen on deaf ears. Legal and regulatory challenges to the County's precipitous action appear to have gone nowhere. The experts I've spoken with who have been following the situation in Santa Clara County most closely have all told me the same thing: This is almost certainly going to happen.

If only these two airports were affected, it would be bad enough. But none of the experts I've spoken with expect things to stop there. There are already indications that Santa Monica Airport (KSMO) in Southern California may cease selling leaded avgas soon. There are also rumors about similar bans coming at California airports from Watsonville (KWVI) in Northern California to Gillespie Field (KSEE) in San Diego. If the dominoes start falling, it's unlikely that this will remain confined to California for long. All owners and pilots of piston aircraft need to be concerned.

Getting rid of lead

I'm hardly an environmental activist, but I've been an outspoken proponent of unleaded avgas for many years—for reasons having nothing to do with the environment. Tetraethyl lead (TEL) is a great octane booster, but everything else about it is terrible for our engines. It is the principal cause of the scaly combustion chamber deposits that lead to stuck valves (especially in Lycoming engines), and the principal cause of sludge that contaminates oil control rings and leads to high oil consumption and low compression (especially in Continental engines). It's also extremely toxic, and it is only manufactured in one plant located in the U.K. so the supply chain for TEL is highly tenuous.

A good illustration of the evils of TEL can be found in the Rotax Line Maintenance Manual, which calls for the use of synthetic oil and an oil change interval of 100 hours provided the engine is operated on unleaded mogas. However, the manual prohibits using synthetic oil if the engine is operated on 100LL more than 30% of the time, and cuts the oil change interval in half to 50 hours. Also, the gearbox inspection interval is reduced by half if the engine is operated on 100LL.

I firmly believe that the sooner we can move from 100LL to unleaded avgas, the better it will be for our engines. But, the unleaded avgas needs to be suitable for our engines.

Is 94UL suitable?

At present, the only approved unleaded avgas available in meaningful quantities is 94UL. This may or may not be a suitable fuel for your piston aircraft engine, depending on what kind of engine you



have. Low-compression engines that were originally certified for use with 80/87 or 91-octane avgas (both long unavailable) should do just fine on 94UL.

However, 94 UL is not suitable for high-compression or turbocharged engines that were certified for use with 100-octane avgas. For one thing, it is not legal to operate them on fuel with an octane rating lower than 100—this is an operating limitation for which compliance is mandated by FAR 91.9(a). Legalities aside, operating these engines on 94-octane fuel does not provide sufficient detonation margin when operating at high power (especially takeoff power). You might get away with it on a cold day, but the engine might experience destructive detonation on a warm day. So, operating on a non-conforming fuel is not just illegal, it's also irresponsible and dangerous.

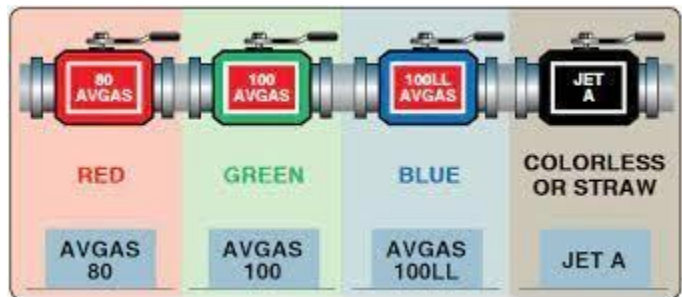
How can you tell whether or not UL94 is suitable for your engine? There are several ways. The minimum octane requirement should be prescribed in the operating limitations section of your POH or AFM. In addition, this information should be placarded at each fuel filler port of the aircraft. Also, you can pull up the Type Certificate Data Sheet for your engine and find the compression ratio and minimum octane requirement there.

If your airplane is powered by a Lycoming engine, Lycoming has a lovely service bulletin—Service Instruction 1070AB—that sets forth all the approved fuels for every Lycoming engine model. If you look at Table 3 of this service bulletin, you'll see that lots of Lycoming engine models are approved for use with 94UL, while lots of other engine models are not. For instance, the Lycoming IO-360-B, -E, -L, -M, -N and -P are approved to run on 94UL, but the IO-360-A, -C, -D, -F, -J and -K are not. A similar situation exists for the other Lycoming engine families—O-320, IO-320, O-360, TIO-360, O-540, IO-540, TIO-540, etc. Some are approved for 94UL, some aren't. You need to look up your particular engine model variant to know which category it falls into.

What about 100UL?

Creating a viable unleaded 100-octane fuel has been a much tougher task than either the industry or the FAA anticipated. The joint FAA/industry Piston Aviation Fuel Initiative (PAFI) program has been working to qualify one or more suitable fuels since 2013, and after 8½ years still has nothing to show for it other than various unsuccessful candidates that were sent back to the drawing board.

At present, the only approved 100UL fuel is the one formulated by General Aviation Modifications Inc. (GAMI) in Ada, Oklahoma known as "G100UL." The FAA has granted STCs for this fuel to be used in a wide range of low-compression engines, with extension of the Approved Model List (AML) to high-compression and turbocharged engines expected in 2022.



To continue reading: click

here <https://mailchi.mp/savvyaviation.com/1j20vrh4sa-890044...>

From Gill at the CAAPSO Meeting-

December 17, 2021

Re: Santa Clara County Fueling and Leasing Actions

Dear Messrs.:

On October 8, 2021 we received your electronic mail and letter alleging that the County of Santa Clara (County), owner/operator of Reid-Hillview Airport, will prohibit the sales of leaded

gas December 31, 2021 except for emergency operations. In addition, the County will only pursue 30- days leases with Fixed Based Operator (FBO) tenants, once their current leases expire. You requested the Federal Aviation Administration's (FAA) support in this matter.

The County is the recipient of federal assistance for airport development. Before providing this assistance, the FAA receives certain assurances from the airport sponsor. A copy of the currently effective standard grant assurances is available at https://www.faa.gov/airports/aip/grant_assurances/.

We are reviewing your allegations and supporting information. We will conduct our review of assurance-related allegations as expeditiously as possible to determine whether further FAA action is warranted at this time. Please keep in mind, however, that the time required to resolve an issue depends on the complexity of the issues involved and the clarity of the facts and extent of the supporting documentation.

Sincerely,

Mark A. McClardy
Director, Airports Division
Western-Pacific Region

[*Take a look at this Embraer EMB-202A Accident in Tocantins, Brazil-*](#)



<https://www.youtube.com/watch?v=d3JmRViHQno>



HEXA – US Airforce –

The aircraft is made of lightweight carbon fiber, which is many times stronger than steel, thanks to which the aircraft has good aerodynamic characteristics.

The airplane weighs 200 kg and is capable of speeds up to 101 km / h. Anyone who has reached the age of 18, weighs less than 113 kg and is up to 2 m tall, can become a pilot of this unusual car. Takeoff and landing are carried out with a simple push of a button, and controllers and a set of sensors coordinate almost all movements instead of a person. When the pilot cannot cope with the joystick-“helm”, GPS-lock fixes the multicopter at a stable altitude or smoothly lowers it to the ground. Listing as a Part 103

EAA Homebuilders Week Online Webinar Series Returns in January



November 18, 2021 – EAA is bringing back its Homebuilders Week series of online webinars in January 2022, following the big success of the inaugural series earlier this year. The upcoming series is scheduled for January 24-28, 2022, which encompasses the 69th anniversary of EAA’s founding on January 26, 1953.

“More than 16,000 people participated in this year’s first Homebuilders Week, far exceeding our expectations and making it an easy decision to bring the series back in 2022,” said Charlie Becker, EAA’s director of chapters and homebuilt community manager. “We’ve taken the input received from presenters and participants to improve our goal of sharing information and knowledge when it comes to constructing a safe and fun aircraft.”

[EAA Homebuilders Week](#) virtual presentations are open, free of charge, to everyone interested in building an aircraft. The event is sponsored by Aircraft Spruce & Specialty, Dynon, Scheme Designers, Van’s Aircraft, and Zenith Aircraft.

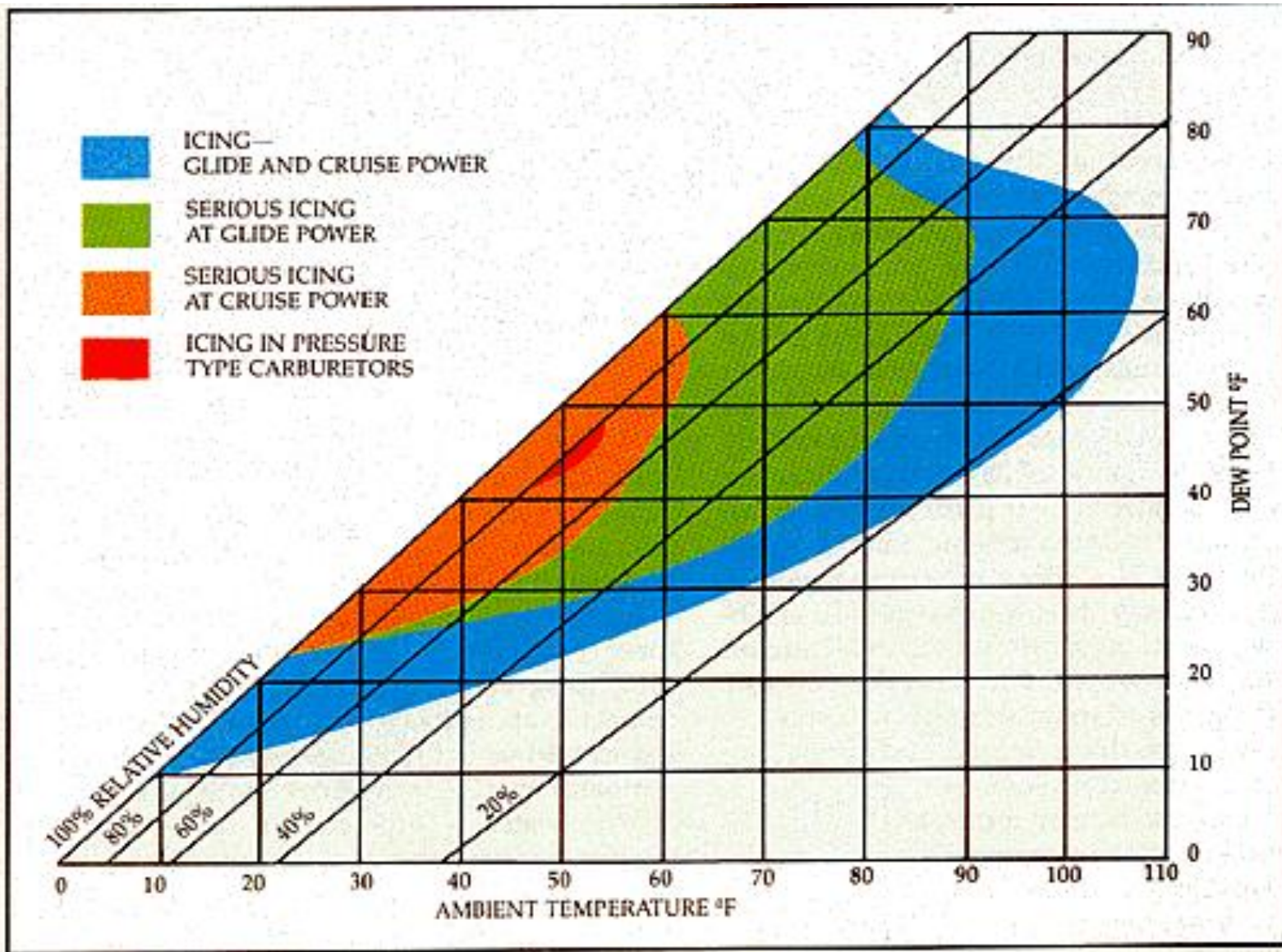
The six daily live presentations will begin at 11:30 a.m. Central Time each day (Monday through Friday) and continue until 8:15 p.m. It will include everything from getting started successfully to techniques when building with sheet metal, composites, steel, and wood. New and experienced builders will also find in-depth talks on panel planning, wiring, engine selection, FAA certification, and flight testing. The live sessions will also allow plenty of time for attendee questions. Recordings will be archived and available to EAA members for review after the week’s presentations are completed.

“We learned from our initial Homebuilders Week that there is a huge demand for the knowledge and information that we presented, whether someone is considering building an airplane for the first time or is seeking to build their foundation of skills and knowledge,” Becker said. “Homebuilders Week is

one more way EAA assists aircraft builders and is an excellent complement to the vast resources available during EAA AirVenture Oshkosh each summer.”

The technology used during EAA Homebuilders Week is based on the success of EAA’s webinar series, which has welcomed more than 250,000 people for presentations since 2010. Updated schedule and presentation information, as well as registration details, is available at EAA.org/HomebuildersWeek.

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*If you wanted to know a little
bit about icing....*



It's been almost 40 years since the miracle landing of Trans American flight 209 in Chicago, IL. After the Boeing 707's takeoff from LAX, Captain Clarence Ovuer and First Officer Roger Murdock became incapacitated from acute food poisoning. After flight attendant Elaine Dickinson stabilized the aircraft and activated the autopilot, passenger and ex-fighter pilot Ted Stryker was summoned to take command of the aircraft. With the guidance from Chicago ATC specialist Steve McCroskey and Stryker's former commanding officer Rex Kramer, TA 209 landed safely with no fatalities.



For Sale

Bendix AV8OR GPS - \$25 – see jim Heffelfinger

Kuntzleman - DOUBLE DUAL MAGNUM – SYSTEM 12 volt Model with Driver and Two STANDARD STREAMLINE Heads – New in Box- \$100. jimheffelfinger@gmail.com

Giving away a mid-tower PC

MB: ASUS 88 GPU on board gpu R7 RAM: 16 GB DDR3 - HD/SSD - none, slots for 4 drives

PS: 400 w , Disc media drive - None - empty bay. Jim Heffelfinger

Be first to identify this month's Mystery Airplane by emailing
chapter52.news@gmail.com



FROM THE EDITOR(s)

We are trying several different formats for the newsletter – feedback would be appreciated!

If you would like to contribute a story or news article it would be great. All submissions should be emailed to no later than the 15th of the month. Remember if you submit an article from a publication; please include the name and date of publication so that proper credit can be given. Chapter52.news@gmail.com.

IF YOUR MEMBERSHIP HAS LAPSED let me encourage you to re-engage! We miss you and your involvement in Chapter 52!

If you would prefer to be removed from our mailing list, just drop an email to Chapter52.news@gmail.com requesting to be unsubscribed and we will do so promptly.

If there is anything you wish to be mentioned in the Wing Flap email both of these emails-- to Chapter52.news@gmail.com nicktheodorovic2406@gmail.com

BOARD MEETING

*2nd Tuesday of
each month*

7PM-9

Zoom

Meeting ID:

858 9594 7691

Passcode:

63860

*(Interested
members*

*always
welcome!)*

CHAPTER 52 MEMBERS MEETING

Last Tuesday of each month

7:00 PM

Zoom

[https://us02web.zoom.us/j/86295420288?pwd=](https://us02web.zoom.us/j/86295420288?pwd=ZzFxeXNRU0NZZWRRL0pmbHBfYjJXQT09)

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[pmbHBfYjJXQT09](https://us02web.zoom.us/j/86295420288?pwd=ZzFxeXNRU0NZZWRRL0pmbHBfYjJXQT09)

Meeting ID: 862 9542 0288

Passcode: EAA52