



Spirit of Flight

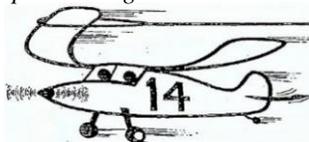
Experimental Aircraft Association
Chapter 14: San Diego, CA

July 2022



Trevor Pearson tamps down asphalt to repair damage to the EAA-14 ramp from a heavy vehicle.

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Upcoming Events

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July 16th—Pancake Breakfast & Membership Meeting—Bill Brick on “Aviation Weather.”

July 23rd—Flyout to Chino. Contact Francisco Munoz at 619-254-3344 for additional information

Chapter Briefing

EAA Chapter 14 Members



Chapter Activities: Information provided by Chapter members.

Week ending June 4: Two Chapter members are out of town: Gert Lundgren is off to Sweden for a month visiting friends and relatives. Nigel Worrall is in Arizona starting on building his Arion Lightning LS-1 with factory assistance. Nigel promises to make a write-up about the build. He will spend 7-10 full days at the factory during the first session putting kit assemblies together. Then there is a break while the plane is painted and then he goes back to Arizona again for the next phase of the build. After all the sessions are completed, he'll be able to do the annual on his own plane – a great incentive for the long hours and hard work he'll be spending. Monday morning Ryan arrived at the Chapter to find that the flapper on the toilet had stuck and there was water everywhere, including flowing down the driveway. It took awhile to get that under control and cleaned up. However, the event ensured a long-needed task will finally get done. Ron Shipley picked up a new, low-water usage, higher toilet, as well as new vinyl for the floor. He and Gary List spent five hours working on getting everything installed! Wow – talk about volunteer spirit! Plumbing, working with flooring, and working in a tight space is not fun. But the hard work will definitely be appreciated. Thanks so much.

Ron did get some aviation related time in though. A longtime friend who is also his A&P/IA (great to have friends like that!) visited and removed the brake cylinders in the Aircoupe to rebuild them. The friend is also doing the annual. To help prepare the future generation, he brought along one of his IFR students and an aspiring young female aircraft mechanic. The rest of the week saw Jimmy Kennedy and Trevor Pearson continue the fabric covering on Jimmy's Nieuport. Jim MacKinnon is making steady progress on his Nieuport as well, as is Joe Russo on his Stits. Also at the Chapter working on various projects were Gary List, Jonathan Robbins, and Ryan. Ryan also showed an aspiring Eagle around the Chapter and took him for an Eagle flight in the Diamond. The man had never been in a small airplane before and it strengthened his resolve to start flight training.

Week ending June 11: Nigel Worrall reports he is making great progress on the first phase of his Arion Lightning LS-1 quick build. At the Chapter, much of the week was spent making final preparations for International Young Eagles Day. Hermes Hernandez, our current Young Eagles Coordinator, Ashley Lopez, our past Young Eagles Coordinator, and Trinidad Lopez, Chapter President, had lots to do to get ready. Chris Constantinides and Francisco

Munoz helped by encouraging extra pilots to come out for the special day of activities. All the hard work really paid off. There was a great turnout and lots of volunteers – too many to mention. But here are just a few: Patrick Cooley helped with the kit planes and with lunch, Reg Finch demonstrated how a wind tunnel works, and representatives from the Civil Air Patrol helped with departures, safety, and all around security. Charlotte Robbins helped with entries into the Teenie Two and also took in lunch donations. And, as always, Richard West was present with his chess set for curious Young Eagles waiting for a flight. Lots of pilots showed up to fly both Young Eagles and Eagles: Chris Constantinides in his Arrow, Roman Hendle in a PA28, Trevor Pearson in a PA 20, Don Ramn in an RV-12, Jonathan Robbins in the Meyers 200, Tom Rodabaugh in his C-172, James Sirens in his PA28, Abraham Talerman in a C-182, and Ben Zanin in a PA-24. Francisco Munoz was involved as well. Roman started out as a Young Eagle many years ago – and was present faithfully for years. Ryan and Pete Grootendorst flew him often. Now he is a CFI at First Flight – a great example of how our Young Eagles program makes a difference. Hermes did a great job organizing everything and it was nice seeing his family enjoying the day as well. Trinidad Lopez and his wife Sharon produced an excellent lunch as usual: pizza and hot dogs for the YE's and adults had an additional choice of chicken, mashed potatoes, rolls, green beans, stuffing and gravy – plus ice cream and cake. We were very grateful that a lot of YEs and their parents helped clean up afterwards.



First Flight CFI Roman Hendle (right) as a Young Eagle many years ago with Chapter 14 Founding Member Ken Smith

A highlight of the day was the presentation of the Life Membership award in remembrance of Pete Grootendorst. Present to accept the award were Janeth Grootendorst, Pete's wife, and Linda Sorenson, Pete's daughter, with her husband Scott. Several members spoke about the impact Pete had made both at the Chapter and in their personal aviation journey. Janeth was given a board containing some pictures of Pete engaging in his activity at the Chapter, along with a certificate expressing our appreciation for all that Pete did

and was. The Life Membership Award will be displayed in Hangar 1.

Week ending June 18: One casualty from the previous week was that a heavy vehicle made a large pothole in the asphalt between Hangar 2 and Hangar 3. The indefatigable Trevor Pearson and Jim MacKinnon dug out the bad bits and filled it back in tightly so the hole is no longer a driving hazard. Trevor also found time to help Jimmy Kennedy with the covering on the Nieuport. Ryan and Hermes Hernandez took a ride in the Diamond and Jonathan Robbins was able to take several flights in the Myers. Saturday's General meeting turned out to be a gorgeous day – not too hot, and of course, it was even better since it started out with our pancake and waffle breakfast, prepared by Kevin Roche, and his son David. After a stimulating General Meeting, there were takers for a picnic lunch served by Donna Ryan of ham, turkey, cheese, rolls, potato salad, fruit, and ice cream. In fact, some of the directors were still enjoying lunch during the Board Meeting.

Week ending June 25: At least six of our members are off to Oshkosh at the end of July: Jimmy Kennedy, Kevin Roche, Joe Russo, Ron Shipley, Alan Sparkes, and Nigel Worrall. During the week, Bob Hitchcock worked with Gary List, Jonathan Robbins went flying in the Myers, and the Club Grumman was out for a flight. Jimmy Kennedy was back from a short trip and got right back to work on the Nieuport. Ronald Shipley was working on his Aircoupe and Ryan was busy getting ready for his annual on the Diamond.

Fun Fact: EAA National's ChapterGram publication noted that Chapter 36, in Hagerstown, Maryland, flew their 7,000th Young Eagle. Jonathan Robbins mentioned that was his old chapter where he started flying Young Eagles. And he is still at it: He flew nine kids on June 11th. On Friday, Trevor Pearson, never one to leave a project unfinished, rented a tamping rammer, purchased some asphalt, and got to work smoothing out the pothole on the tarmac. He is the Energizer Bunny in human form.

General Meeting: Chapter President Trinidad Lopez opened the meeting and welcomed Chapter members and guests. He thanked all the volunteers for the great turnout for



Trevor Pearson (left) assists Jimmy Kennedy with covering the elevator of Jimmy's Nieuport.

International Young Eagles Day and reviewed upcoming Chapter Activities.

Kerry Powell, our Chapter Program Director, first introduced John Schaper, the Safety Team Manager (Maintenance) at the San Diego FSO (Flight Standards Office) who spoke briefly about some of the upcoming organizational changes at the FAA and the FSO. He also mentioned that there have been issues flying in Mexico recently. They are having problems with staffing and have had to use non-standard communicators for air traffic control. There are apparently issues with equipment as well. So for those of you flying in Mexico, be careful and be prepared.

John mentioned a meeting that he holds on Thursday evening from 5pm to 7 pm on Thursday evenings that is for all A&Ps, Repairmen, Builders, IA and Pilots. He shared the following information: "We have a very wide range of topics from review of the FAR's to Human Factors, Light Sport, Experimental Aircraft to specific things like fuel systems, rigging etc. We start out with Safety Team data, Western Pacific and FSO news, National News, and then this day in aviation history. The main topic comes next, followed by Q&A at the end. Anyone who would like to attend should just shoot me their E-mail information. They do get 2 hours of IA credit if they are an IA but (not AMT or Wings credit)." John's email is john.p.schaper@faa.gov.

He mentioned that the local FSO is still severely understaffed, but that we are more than welcome to contact him directly with any FSO issues and he will try to help. Thanks so much, John!

Kerry Powell then introduced our speaker for the month: Shane Terpstra. See a short overview of his presentation, AvGas – Past and Present, on page 5.

Never fly in the same cockpit with someone braver than you

--Richard Herman Jr.



Jim MacKinnon pulls his assembled Nieuport skeleton out of Hangar 2



President's Message

Hello Everyone,

First, I'd like to say thanks to the many volunteers who made our June International Young Eagles day such a success. We made 45

Young Eagles and five Eagles flights, thanks to our great pilots and ground crew. We offered special aviation related activities at lunch for the kids, parents, volunteers, and chapter members. We even had a fire engine on display. Thanks again to everyone who participated.

I would also like to give a special thanks to chapter members Pedro Flores, his son Ryan our 2020 Ray Aviation scholar, and the entire Flores family. Each month Pedro and Ryan are at the chapter to volunteer in support of our Young Eagles program. You can always see Pedro and Ryan setting up early in the morning and then Pedro marshalling aircraft, with Ryan giving the Young Eagles presentation. I recently received a message from Pedro that this month will be there last event. The family is moving to Kansas City. Best wishes on their future endeavors and please stay in touch.

Our new lunch schedule was a success on the first Saturday of the month, and a special thank you goes out to our volunteer cook, Stephen Larew.

The Second Saturday of the month is Young Eagles day. Last month, our International Young Eagles Day celebration was a great success. I would like to encourage Chapter members to volunteer as pilots or ground crew. Please contact Hermes Hernandez at 561-309-6713 for additional information.

The Third Saturday of the month will include breakfast followed by our monthly presentation. There is no lunch scheduled for this day.

The Fourth Saturday this month will include a scheduled fly out to Chino Airport. Breakfast and a tour of the museum is planned. Please contact our fly out coordinator Francisco Munoz at 619-254-3344 for additional information.

We are working on planning a Chapter fly in and barbecue – look for more information on how you can help. We also hope to make our selection for our 2022 Chapter Ray Aviation scholarship nominee soon.

I hope to see you all at the Chapter this month.

Clear skies,
Trinidad Lopez

When everything seems to be against you, remember that an airplane takes off against the wind, not with it.

--Henry Ford

New Food Service Schedule

Since formally reopening after the health restrictions, we've been trying different schedules for serving food to see what works best for our members. Beginning July 2, we'll be trying out this new schedule.

- 1st Saturday of the month: A volunteer will prepare and serve lunch. Lunch starts at 11:30.
- 2nd Saturday of the month: Volunteers will prepare and serve lunch to Young Eagles, parents, and members. Lunch begins at 11:30.
- 3rd Saturday of the month: Pancake breakfast will be served prior to the General Meeting. Note: Breakfast ends at 9:30 am so cooks can clean up before the General Meeting. No lunch will be served on the 3rd Saturday – most of our members are still full from breakfast.
- 4th Saturday of the month: No lunch served.

This schedule can change depending on what our members would like. So let us know. However, as with everything at the Chapter, it all depends on volunteers – so if you want to expand the schedule, we're willing to do that, but do your part and volunteer to prepare and serve it.

Zoom Meetings Available

Our Program Director, Kerry Powell, has graciously enabled us to watch and hear each General Meeting via Zoom. While it is great to actually come down to the Chapter, enjoy a pancake breakfast, and hear the speaker in person, being able to benefit from the Zoom presentation is a great option for those times you just can't make it to Brown Field. Kerry sends out a Zoom invitation each month a couple of days before the meeting. Just log into Zoom around 10:00 am using the login information provided in the invitation. The July General meeting will feature Bill Brick speaking on Aviation Weather – one of the most important topics for pilots. Hope to see you in person or via Zoom on July 16th. Thanks, Kerry, for providing this additional method of sharing aviation-related information.



Kerry Powell, EAA-14 Program Director

July 16th: Bill Brick, on Aviation Weather. Many of the meteorological conditions that lead to poor air quality are conducive to low ceilings and visibilities. Bill will explain how these processes work, and how this knowledge of meteorological processes can be used in flight planning.

Bill's career as a meteorologist focused primarily on air quality, with many years of using aircraft to conduct air pollution research throughout the country.

AvGas – Past and Present



Shane Terpstra

Short Summary by Donna Ryan

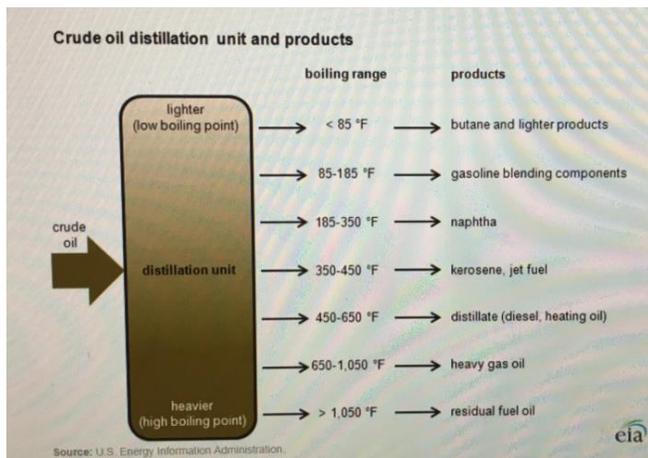
The following information is based on a talk given by Shane Terpstra, Director of Safety and Chief Pilot for Plus One flyers

At the June General Meeting of EAA Chapter 14, Shane Terpstra, Director of Safety and Chief Pilot for Plus One Flyers at Montgomery Gibbs Airport, provided an excellent overview of gasoline and AVGas – its history, processing, and composition. The session also dealt with the obstacles and current state of unleaded AvGas rollout. The following summary covers just a few of the highlights of the talk – it definitely does not include all of the points.

He began the talk with two true stories. One concerned a diesel truck; the attendant didn't realize the truck was diesel and put regular gasoline in the fuel tank – needless to say the truck didn't like that and sputtered when running until the fuel was gone. A more serious and potentially life-threatening occurrence was when an airport attendant put jet fuel in a plane with a piston engine and the pilot experienced engine-outs in both of his engine. The two stories highlighted the importance of using the right fuel for the job.

Shane pointed out that man has been using petroleum (crude oil) products since way back in 4,000 BC – Babylon used it for asphalt. In 1859, a man named Edwin Drake was the first person to drill for oil in modern times. After a brief discussion of who produces oil today and how (drilling and fracking), he discussed how petroleum is converted to gasoline. First step is to heat petroleum to distill it, then refine it, add additives and detergents (and lead). Once it is blended, you can buy it.

Shane shared the following slide which shows the products produced by different distillation boiling points:



He also discussed the processes occurring at refineries and blending terminals. He pointed out that gasoline is very different from one place to another and from one season to another because the blend is different to change vapor



Program Director Kerry Powell (right) introduces June Speaker Shane Terpstra, Director of Safety and Chief Pilot for Plus One Flyers at Montgomery-Gibbs Airport

pressure. This allows vehicles to start at different temperature. Obviously this represents a huge problems for aircraft as they fly from one location to another – which is why AvGas was standardized to 100LL (low lead).

Shane next reviewed octane, which is a measure of fuel stability. Higher octane is more stable; detonation (aka knocking) usually occurs with less stable fuel and this is definitely something we do not want in an aircraft. For GA AvGas, 100 octane rating is a lean mixture and 130 is a rich mixture. He shared an excellent video demonstrating this more clearly.

In the 1920s, lead in the form of Tetra-Ethyl Lead (TEL) was added to gasoline to increase octane in high compression engines. This also added a protective level to valve seats. But in 1990s, with the Clean Air Act, lead was no longer in favor; in addition, since valve seats are now made with different metals in new engines, there is no longer a need for lead. As part of the new direction, in 2008, at a press conference in Oshkosh, Lycoming stated that pilots could use unleaded gas in their new engines.

However, there were obstacles in making a rapid change to UL gas.

- The average age of GA planes is 40 years, and many do not have “new engines.”
- Many small airports do not have and could not afford fuel tanks when many airplanes still needed the 100LL.
- 30% of high compression aircraft use 70-80% of the AvGas – it didn't make market sense to produce UL fuel.
- - The entire GA fleet would need to be recertified.

Initially the FAA also didn't see a market reason to switch to no lead, although later decided it would be a good idea. This led to a number of companies who tried to produce UL gas, but many contenders dropped out because of economic issues.

Shane discussed two companies who are current players. One is Swift, but it is not widely available and is not in San Diego. Its UL94 fuel has been certified since 2015 and 68% of the fleet could use it with an STC (Supplemental Type Certificate).

The other option is GAMI 100UL. It is a true “drop in” replacement where the UL fuel could be mixed with 100LL with no problem. Some additional benefits:

- Works on all 100LL piston engines
- Increased TBO – est: 25% or more
- Less fouled plugs
- Use of Synthetic Oil (lower CHT’s)

It will initially cost maybe \$.60 to \$.80 more per gallon. Shane had nothing but praise for the originator of this product and called him a “genius” guy. The fuel works with the entire fleet of GA aircraft and it has been thoroughly tested, including by the FAA.

The FAA says GA will eliminate lead emissions by the end of 2030, but Shane stated he felt we were already there. The FAA is not yet ready to agree and is resurrecting something called the “Eagle” program to do more research, development, and testing. However, in January, the EPA has added more urgency to the subject as it is evaluating whether lead emissions from piston-engine aircraft endanger human health and welfare – the finding will most certainly say yes, putting additional pressure on approval of an unleaded fuel program.



Marketplace

For Sale: Brand new RV-10 empennage. Purchased for \$4,500 in February 2021. All parts, tools, and paperwork available; can be registered at Vans. Donated to EAA Chapter 14. Selling for \$1,500. Text Ryan at 858-229-4875 for more information and pictures.



Never interrupt someone doing what you said couldn't be done.

--Amelia Earhart

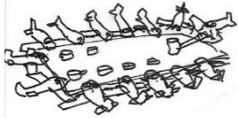


Trevor Pearson Repairs Chapter Ramp Asphalt



Last month, Trevor Pearson, our Chapter Energizer Bunny, not only filled the hole left on our ramp by a heavy vehicle, but also rented a compactor and purchased asphalt patch material to finish the job. Thanks for stepping in and making this happen!





June 18, 2022 Board Meeting

Donna Ryan, Chapter 14 Secretary

Provisional Minutes – Pending Board Approval

The Board meeting was held on Saturday, June 18, 2022 beginning at 12:15 pm.

Directors and officers present were: Jimmy Kennedy (proxy), Ted Krohne, Ashley Lopez (proxy), Trinidad Lopez, Kerry Powell, Jonathan Robbins, Kevin Roche, Donna Ryan. Directors and officers absent were: Gene Hubbard (excused), Francisco Munoz, Larry Rothrock (excused), Ron Shipley (excused), Alan Sparkes, Stu Strebig.

Board Decisions

(Subject, moved by, seconded by, pass/fail)

- May 2022 Minutes reviewed and approved. Kerry Powell/Ted Krohne: passed.
- Lunches will now be held on the first and second Saturday of the month only. Pancake breakfast will continue to be held on the 3rd Saturday of the month. Kevin Roche/Kerry Powell: passed.
- Authorize Kerry Powell to purchase an audio mixer with two microphone input at an approximate cost of \$100. Kevin Roche/Ted Krohn: passed.
- Motion to adjourn. Kerry Powell/Ted Krohne: passed.

Old Business

Lease Option: **Trinidad Lopez** discussed the recent meeting with City representatives Michele King and Jorge Rubio. Present for EAA 14 were **Trinidad Lopez, Bob McCall,** and **Larry Rothrock.** The City will review our recent proposal and requests.

International Young Eagles Day: **Trinidad Lopez** reviewed some of the highlights of our very successful International Young Eagles Day and expressed appreciation for the many volunteers that helped.

Ray Scholarship: **Trinidad** discussed the status of applications for the Ray scholarship. He will present an overview of the applicants via email for the Board's review and decision.

Lunches for Saturday: The issue with having volunteers sign up to do lunch is ongoing. It also appears that it makes sense to discontinue having lunch on the third Saturday because many of our members enjoy pancake breakfast before the meeting and are still full. The Board decided to discontinue having lunch on the 3rd Saturday, and instead have a regular lunch on the first Saturday. The new food service schedule will be full lunch on the first and second Saturday, and pancake breakfast on the third Saturday. A sign-up sheet will be sent to renters.

First Aid Training: The Board agreed that first aid training would be beneficial and discussed several possible options.

An article will be put in the next newsletter asking for recommendations. The Board agreed that we need to have specific emergency instructions as signage in Hangar 1.

Internet Connection at the Chapter: Internet connection has been working well since last month.

Possible upgrades to Chapter audio equipment and video presentation options: Members and visitors at the General Meeting agreed that the new TV donated by **Chris Constantinides** worked well and was easy to see even from the back of the room. **Kerry** uses some of his own equipment during the meeting, especially as the meetings are recorded. He also noted that it would be helpful to have microphones that could be passed around during general meeting so that comments and questions could be better heard for our online audience. He noted that an audio mixer with two microphone inputs would be desirable. The Board agreed that he should make this purchase. The old TV on the stand will be disposed of, hopefully on the next Young Eagles Day when we hopefully will have some strong backs to get it off the stand and into a car for proper disposal.

Signs: The City approved our request for signage and we can put up a sign immediately by Gate 4. The Board discussed temporary signage we could put up on Young Eagles Day, especially to direct parents. **Trinidad Lopez** mentioned we already have sandwich boards we could use for that purpose.

New Business

Defibrillator: The new battery was installed in the defibrillator in Hangar 1; however, the machine alerted us that the pads need replacing. We need to review the status of the machine to ensure it is still certified. As we will not be maintaining the defibrillator in Hangar 3, we will remove it and determine the appropriate method to dispose of it.

Upcoming Activities: We plan on having a flyout to Chino on the fourth Saturday in July and a fly-in in September.

Items Identified During the Meeting to be discussed next month

Lease update, Ray scholarship, first aid training, possible reallocation of bank products, upcoming activities.

The meeting was adjourned at 1:10 pm.

Submitted by **Donna Ryan**

No one can realize how substantial the air is, until he feels its supporting power beneath him. It inspires confidence at once.

--Otto Lilienthal



July 2022

Facebook

<http://www.facebook.com/pages/EAA-Chapter-14-San-Diego-CA/134162329986593>

Chapter Website

<http://www.eaa14.org>

EAA Chapter 14 Memberships

Applications are available at our Brown Field hangars and on our website.

General Chapter Information:

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EAA Chapter 14 (with answer machine) (619) 661-6520

Chapter Events

Open House at the Brown Field hangars:
every Saturday from 10:00 am to 2:00 pm.

Pancake Breakfast:
7:30-9:30 am, third Saturday of each month

General Meeting: 10:00 am, third Saturday of each month

Hangar Phone:
619-661-6520

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San Diego Chapter 14
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