

Spirit of Flight

Experimental Aircraft Association

Chapter 14: San Diego, CA

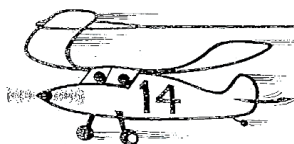
April 2020



Pocahontas in flight. See article on page 4. Photo by Raymond Rivard.

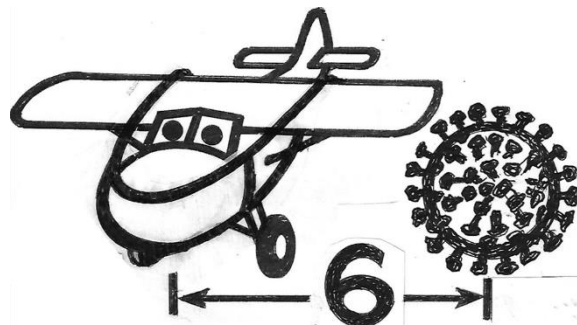
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 Photos by Jim MacKinnon



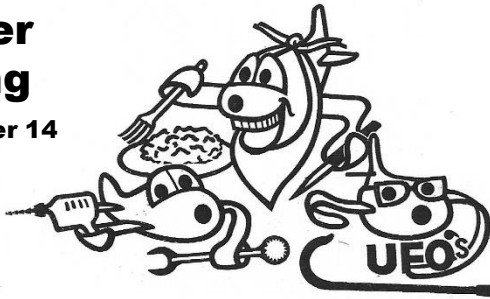
Upcoming Events

No activities scheduled due to COVID-19 social distancing rules. Stay safe.



Chapter Briefing

EAA Chapter 14 Members



Chapter Activities: Information provided by Chapter members.

Week ending Mar 7: Great flying weather during the week. One of Ryan's friends flew an SQ 2000 down from Corona – he and Ryan took it through its paces; it flew comfortably at 190 mph – beautiful plane. Mark Albert in his RV-3 and Dion Dyer in the Piper took to the skies as well, taking advantage of the clear weather. On Saturday, Chapter members enjoyed a delicious homemade meal prepared and served by Janeth Grootendorst: aji de gallina, a filling Peruvian chicken dish with rice, a lavish salad, and other sides. Even notoriously picky eaters really enjoyed it and one requested the recipe. Young Eagle Toni Rodriguez spent time chatting with Eagle Emeritus Bob Johnson, who provided, as always, valuable information on aviation.



SQ 2000 from Corona. At 190 mph, this one really moves. 3/5

Week ending Mar 14: A very unusual week at EAA 14. Rain didn't stop our Tuesday/Thursday regulars from working on their projects, but Friday brought a necessary, but unwelcome decision. Because of the health issues and government directives surrounding the coronavirus, EAA 14 cancelled all Young Eagles events, general meetings, and lunches until the end of April. No one wanted to do it, but it was necessary. However, the Chapter remained open for members to access their planes and projects and on Saturday a number of members were present (carefully observing the 6-foot rule) including most of the members of the Serendipity Club. Director Alan Sparkes had already purchased food for the large group of Young Eagles that had been expected, but it won't go to waste. It was put in the freezer for later use.

Week ending Mar 21: Uncertain weather, uncertain times. During the week, some Chapter members were busy: Gene Hubbard and Jimmy Kennedy working on their Nieuports, Billy Lopez and others (?) installing an exhaust on the Club Piper, Ryan rebuilding an engine. Chuck Stiles took advantage of good weather to make the drive up to Idaho.



Janeth Grootendorst, our first-Saturday chef in March, takes a spin in the chapter vehicle during a break. 3/7

He and his wife Robin spend several months of the year up there. Guess he wanted to make his escape in case California closed its borders. On Friday, Gary List cleaned up the kitchen and bathrooms – we owe Gary such a debt of gratitude for all his efforts in keeping the Chapter clean under trying circumstances – and except in incredibly rare instances, all by himself. The Chapter really needs help in this area – we have the supplies in Hangar 1 ready to go – please lend a hand. On Saturday, the Chapter's directors held a virtual Board Meeting to take care of a few items; but Saturday also had beautiful flying weather and some members took advantage of that to take to the skies, including Chris Constantinides, Gary List, and Jonathan Robbins. Ted Krohne was busy working on his plane, as



Young Eagle Toni Rodriguez with Eagle Emeritus Bob Johnson. This was pretty much the last day of normal operations for Chapter 14 before we shut down because of COVID-19 danger. 3/7.

were the Serendipity Club group. Stu Strebib brought down his recently purchased Aeronca Champ for show and tell. It can serve as a light sport aircraft. Ryan fixed some bolts in Hangar 3 doors to make them easier to open and close.

Week ending Mar 28: Beautiful weather during the week and some members took advantage of it to do some much needed work on their hangars, planes, or Chapter facility—easy to observe social distancing in such a large facility. Ted Krohne worked on a method to prevent water from coming into his hangar; Craig Cornford continued work on his Bushby Mustang II. Ron Shipley took a look at our kitchen counter to identify the need for any additional electrical outlets. Ryan explored a possible change in carburetors and hosted a representative of our annual fire extinguisher inspection. Gary List decided it was a good time to finish painting the kitchen cabinets – the bottom cabinets all needed paint – it's already looking much better. See photos on page 10 .

Ray Scholarship Awarded

Trinidad Lopez

I am very happy to announce that our Young Eagles scholarship candidate, Ryan Flores has been approved to participate in the EAA Ray Foundation scholarship program for 2020. Our chapter has now received the initial funding from the EAA. Normally Ryan would start the flight training portion of his training immediately and have 90 days to complete his first solo. However, because of the corona virus situation, flight training activities are currently suspended. EAA National has agreed to provide an additional 30 days to complete the first solo milestone. There is also the possibility of additional extensions if the situation requires it.

In the meantime, Ryan's ground school mentor, Ashley Lopez, is working with Ryan to get him started on the ground school phase of training. Hopefully he will be able to complete this portion of flight training and be ready to take his written test when flight training activities resume. We had planned to have a Chapter luncheon to announce his scholarship. However, that will also have to wait. In spite of these challenges we are all very proud and anxious to watch Ryan pursue his dream of becoming a private pilot.



EAA-14 President Gene Hubbard congratulates Ryan Flores on receiving a 2020 Ray Scholarship for flight training as his family and Chapter 14 Young Eagles volunteers look on.

President's Message

Gene Hubbard



Two things to talk about this month: COVID-19 and the Ray Scholarship. Bad news first: Two days before our planned Young Eagles rally in March, the Board of Directors made the decision to suspend all organized Chapter 14 activities at least through the end of April. This includes Young Eagles, General Meetings, Lunches, and Historic Aircraft Display opportunities. Many of our members and guests are at high risk for COVID-19 and continuing normal operations would be irresponsible at best. In retrospect, expecting to re-open at the end of April seems wildly optimistic. We will re-open when it's safe. In the meantime, the airport remains open, we will continue to publish the Spirit of Flight, and members continue to have access to their aircraft and workspaces. This isn't an invitation to end-run social distancing recommendations. COVID-19 can come on fast, and it can be devastating.

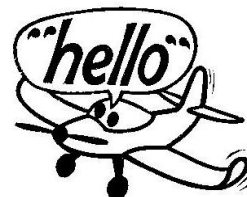
There's also good news. The Ray Foundation has awarded Ryan Flores, one of our former Young Eagles, a scholarship for flight training. This scholarship, funded jointly by the Ray Foundation and Chapter 14, provides funding for all phases of flight training, including ground instruction, flight instruction, aircraft rental, and fuel. Congratulations, Ryan!

Gene Hubbard

New Member

Donna Ryan

Welcome to **Ross Kovalskii** who joined in March. **Ross** is a private pilot who joined the Serendipity Flying Club and will be flying the Club's Piper PA 28-140. Ross is glad to share his flying skills and knowledge and is interested in all aspects of aviation. Thanks, Ross, for joining our Chapter.



Look for Ross at the next meeting, introduce yourself and get to know them better. We greatly appreciate his support.



Blackhawk at SDM. 3/6

Love Takes Flight

Tobias Burch and Jackie Steiner

The EAA Chapter 14 newsletter has had several articles about the Carbon Cub that Chapter member Tobias Burch was building and about Tobias' love of flying. Several of you have seen his beautiful end product. Fewer know the other details that went into building the plane, or how Tobias gained a fiancée and fellow builder in the process. Chapter photographer Gleb Doro took many the excellent photos in this article.

As background, Tobias grew up in Switzerland and got his pilot's license there; he especially loved mountain flying through the Swiss Alps. While obtaining his MBA at the University of Lucerne (he already had a degree in electrical engineering and an apprenticeship in electromechanics), he participated in the mandatory study abroad program in British Columbia. One weekend Tobias saw a Beaver seaplane, signed up for a flight, and became hooked on seaplane flying. After completing his MBA, he took seaplane training in Florida in 2014, then bush plane training in Alaska in 2015. When a job assignment relocated him from Lucerne, Switzerland to San Diego, it gave him the perfect opportunity to achieve his dream of building his own airplane.

After doing a year of research before his departure to San Diego, Tobias finally chose his perfect building project, a CubCrafters' Carbon Cub EX-2, the ultimate bush flying machine. In July 2016 Tobias received his first delivery to his new house in San Diego: a crate containing the full kit which included the wing kit, fuselage kit, firewall forward, engine and avionics.

Six months into Tobias's four-year assignment, while Tobias was still working on his first wing, he met Jackie at a business dinner he attended with a friend. Jackie grew up in Southern California, loved horseback riding, and became very interested in traveling, hiking, and backpacking. She hiked through the European Alps, Patagonia, Sierra Nevadas, Himalayas, Grand Canyon, New Zealand and the Pacific Northwest. Highlights included summiting a 20,000 foot tall peak in Nepal and completing the 200+ mile long



Tobias and Jackie in front of the Carbon Cub.

John Muir Trail. Along the way she received a Civil Engineering degree and an MBA. Because she personally loved getting on airplanes and going places, Jackie was intrigued when she learned that Tobias was building an airplane in his garage. She became further intrigued when she found out about his plan to fly the length of the Americas after he completed the project.

As time passed, Tobias did what any love-stricken homebuilder would do: he asked Jackie for help gluing the stringers onto the fuselage frame. Jackie, being a Civil Engineer and quite mechanically inclined, jumped on this opportunity and Tobias and Jackie found out they had a real knack for working together. Their level of thinking through challenges and processes was in alignment, especially in regards to Tobias' Swiss standards!

Though the relationship was getting serious, Jackie already had plans to go traveling for over a year which gave Tobias the time and space to continue building alone. During that time he spent another 1,500 hours completing the fuselage assembly, boot cowl, and panel/avionics installation, then covering and painting. However, at the end of that time, the airplane was still in Tobias's two car garage, and with Jackie returning from her travels and moving in, it was time to clear out the garage.



Tobias begins his Carbon Cub project by following the instructions: "Open This Side."



Here's what the crate looked like inside. You can recognize the fuselage frame. The next step in the instructions was more complicated.



Tobias and Jackie with the engine on the hoist before installation. This was the last major operation before moving the plane to its hangar.

Once Jackie returned, Tobias started integrating Jackie back into the airplane build. One of her first assignments was to search for parts - all those little nuts and bolts that have specific part numbers. Jackie learned that searching for parts was a very detailed and time-consuming part of building an airplane. There had to be at least 576 different nuts, bolts, brackets, screws, rivets, washers, and other parts and pieces.

The next step was to install the engine and landing gear so they could move the plane from the garage and into a hangar. Jackie and Tobias made a great team: Jackie would read the manual out loud and then give Tobias a hand whenever he needed it. They greased wheel bearings, dremeled the engine mounting bracket, got the engine onto the engine lift, and installed the exhaust.

They then installed the engine to the fuselage with the four bolts, torqued the bolts, reamed the landing gear holes, struggled with installing the landing gear, installed the tires and finally released the engine from the lift. In 4 days, the



Loading up for the trip to the hangar. Tobias rented a 26' Penske truck for the trip.

airplane had an engine and landing gear installed and was ready for the 20-mile journey to the hangar!

On the day of the big move, Tobias rented a 26' Penske truck and arranged for a few friends to help with loading and unloading. With a temporary ramp using two 2x12 boards and two sawhorses at the midspan, the fuselage was easily loaded into the truck. Once safely in the hangar, the final assembly began.



Jackie, Tobias, and friends celebrate at the hangar after the move.

While searching for a job, Jackie had time to help Tobias with the build every day. Starting with the tail feather installation, Tobias and Jackie worked side by side for three-to-five hours every day and made huge progress. Tobias began learning the value of having a very capable partner to complete this project and starting thinking about naming the airplane "Jackie." Jackie, however said, "No way! Who was going to be Jackie 1 and Jackie 2, me or the airplane?" They arrived at a solution one day while discussing a possible name for the plane. Jackie had an Indian style dress that Tobias called the "Pocahontas dress" and they agreed to call the plane "Pocahontas."

After the tail feathers came the vortex generator installation. That became a perfect example of how building an airplane goes. Tobias and Jackie estimated it would take 3 hours to



Jackie installs vortex generators on the plane, now named "Pocahontas."



Tobias looks happy about something. I never thought about leaving the skylight off to get to the wing root!

install all the vortex generators. In the end, it took them 6 hours to complete. Something that you think is going to be a simple task can easily become more time consuming and/or more challenging. They experienced the same issue when installing the wings. The manual suggested using aluminum bullets to streamline the installation process, but Tobias thought, how difficult could it be to install the six bolts that hold on the wing. The first wing was easily installed without bullets, but the second wing was a challenge. After getting the second wing temporarily installed with the bolts and somehow not damaging the threads, Tobias finally broke down and made the zillionth trip to Home Depot to buy the aluminum rods to make the bullets. A little bit of grease and—ta-da! The second wing was aligned and the bolts were able to be completely installed and ready for torqueing.

Then came the wing rigging, jury strut installation, pitot tube installation, windscreen and window installation, painting of the dashboard, windscreen final installation, skylight installation, wing root installation, flap installation, aileron installation and all the cable installations and rigging which included burning holes in the fabric. Every single



Jackie marks the engine cowl for trimming and mounting

one of these steps was completed as a team, figuring it out together, acquiring the right tools, thinking ahead, talking through the process, negotiating when there were differences. And sometimes there were differences – one being the greasing of the tail wheel.

Because of the location of the grease nipple, it required a 90-degree grease fitting. Once again, Tobias didn't have that tool and had search for it at Home Depot, but he couldn't find what he was looking for. Jackie headed off to AutoZone and came back with a tool. Tobias didn't think it was the right tool. Jackie, however, searched on YouTube and learned that she in fact had bought the right tool and it just needed a little more force to get the fitting onto the nipple. Finally, the tail wheel was successfully greased (and Tobias learned an important lesson about working with Jackie – listen to your partner!).



Not sure what Tobias is doing here—looks like something with a temperature probe.

Another benefit of working with Jackie was her small hands. She could accomplish some tasks with tight hand access which would have been more difficult if Tobias was trying to do it alone. Examples of these tasks were the engine baffle safety wiring and wing root installations. And of course, a major benefit was having a partner to help with the constant clean up. A clean shop is an efficient shop!

With the engine installation nearing completion, it was time to start fitting the engine cowl, another time-consuming process to get it to fit perfectly from trimming to sanding to drilling to riveting (all performed to Swiss standards!). Finally, Pocahontas was ready for paint!

After painting the engine cowl, it was time to start finalizing the plane. With the propeller and engine cowl installed, Pocahontas weighted in at 1,025 lbs.

On June 8th, 2019, after double checking all previous steps and completing the build logs, Pocahontas had a successful first engine start. It began to look like she might make it to Oshkosh AirVenture 2019, another one of Tobias's dreams. With just 6 weeks to go, the instrumentation needed to be finalized, the Designated Airworthiness Representative



Cowling with paint. They're getting toward the end now and they look happy about it.

(DAR) organized, high speed taxi test concluded, first flight and 40 hours of phase 1 test flying completed.

After a few setbacks with the instrumentation finalization and DAR inspection and signoff, Tobias finally received approval for the first flight. On July 12th, 2019 Pocahontas and Tobias took off for the first time! To be able to make it to Oshkosh AirVenture 2019, Tobias and Pocahontas were going to have to leave in eight days, leaving Tobias just seven days to complete the required 40-hour flyoff which included three required oil changes and various inspections.

Without any issues, Tobias successfully completed the 40 hours of test flying in those seven days. On the day before leaving for Oshkosh, Tobias took Jackie for her first flight. Finally, 3 years and 2,500 hours of hard work had paid off! A beautiful plane and a new partner as well!

Jackie had gotten a job and couldn't join Tobias for the 3-day flight to Oshkosh, so Tobias's brother Mathias, who designed the paint scheme, came over from Switzerland to join Tobias for the 3-day journey to Oshkosh, WI! After



Tail up in the hangar. This looks like rigging. Even closer to being done.



Jackie gets ready for her first ride in Pocahontas before Tobias leaves for Oshkosh.

dodging thunderstorms, they successfully made it and got the Rock Your Wings command before flying into Wittman Regional, the Oshkosh AirVenture 2019 airport!

But another high point was yet to come. Pocahontas, parked in the Experimental Homebuilt camp, was entered into the home build kit airplane contest. Tobias got to meet one of the judges who asked to see some photo proof of the build. Tobias opened up the CubTrekking Instagram page that Jackie had started and showed the judge the images. The judge saw that Jackie was in most of the photos and said, "If that girl really helped you that much with this airplane build, if you haven't yet, you have to marry her!"

On Saturday, Tobias's brother was headed back to Switzerland and Jackie had arrived for the weekend and the flight back to San Diego. Tobias found a note nicely placed on his seat to join EAA for the awards ceremony that Saturday afternoon. Tobias and Jackie were glad they attended. Tobias received the Kit Built Champion award which included a Lindbergh statue trophy and an invitation to fly in the EAA Low Pass at AirVenture 2020.

After a great time in Oshkosh, Jackie and Tobias had a nice flight back to San Diego. A few weeks later, Tobias wanted to show Jackie what bush flying was all about and found a nice dirt strip in Southern California. Jackie, always up for an adventure, loved the whole experience of landing on a dirt runway and going for a nice walk. Upon finding a beautiful vista overlooking a valley, Tobias took the advice



Mathias and Tobias at AirVenture 2019.



Tobias displays his invitation to the AirVenture Awards Ceremony.



And his Lindy for Kit Built Champion.

of that judge at Oshkosh. Getting a box out of his backpack, Tobias got down on one knee and asked Jackie to marry him. And she immediately said yes!

Although wedding plans are on hold briefly because of the coronavirus restrictions, the date should come soon, with plans for Pocahontas to make a special appearance. In July of 2020, the couple will depart on the second biggest adventure of their lives (with the first being marriage) to



Jackie and Tobias on their bush flying adventure after returning from Airventure 2019. It was a bit of a ruse.



Jackie shows off her engagement ring. I'm sure it didn't come from Aircraft Spruce.

fulfill Tobias's mission of flying the length of the Americas, from Barrow, Alaska to Ushuaia, Argentina. On the way to Alaska, they will stop by AirVenture 2020 to fly in the EAA Low Pass with other Oshkosh champion airplanes.

The mission of the Pan-America trip is to continue raising awareness for general aviation and beyond-boarder flying (and of course to have an adventure and make new friends all around the world). Jackie and Tobias have a 6-month timeframe to fly the estimated 25,000 nautical miles in 275 flying hours with an estimated 21 border crossings. So far, they have already started to receive a huge amount of support through their Instagram network all throughout the Americas for open hangers, places to stay and meals along the way! The flying community really is the best!

You can follow their adventure on Instagram @cubtrekking, Facebook at Cub Trekking, and online at www.cubtrekking.com.



Planned route for Jackie's and Tobias's 2020 Pan-America trek. Follow their progress at www.cubtrekking.com.



Jackie works on the boot cowl, maybe drilling to mount the engine cowling.



Jackie and Tobias at the airport with Pocahontas.



Jackie squeezes some rivets. It looks like she's installing nutplates for the engine cowling.



Tobias and Jackie in the hangar as Pocahontas takes shape



Jackie and Tobias take a break from construction



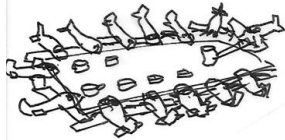
The result: An award-winning aircraft.

March 2020 Board Meeting

Donna Ryan, Chapter 14

Secretary

*Provisional Minutes – Pending
Board Approval*



Because of the coronavirus crisis in San Diego, on Wednesday, March 18 at 11:20 a.m., President Gene Hubbard, in an email to all Board members, advised against holding a face-to-face Board Meeting. Instead, a virtual Board Meeting, conducted via email, would be held to cover only essential items. The President's email contained a suggested timeline for identifying agenda items and for voting on any motions made. By email response, the Board concurred with the plan and timeline. On Friday, March 20, the February Board Minutes, the Treasurer's Report, and the Membership/Hangar Rent report were sent to the Board. On Friday, via email, motions were made to approve the February Board Minutes and the February Treasurer's Report. On Saturday, March 21, Secretary Donna Ryan sent an email asking the Board members to vote on the two motions before the Board.

Directors and officers present via email were: Pete Grootendorst, Gene Hubbard, Trinidad Lopez, Kerry Powell, Jonathan Robbins, Kevin Roche, Larry Rothrock, Donna Ryan, Ron Shipley, Chuck Stiles. Directors and officers absent were: Jimmy Kennedy, Ted Krohne, Gene Lenard, Alan Sparkes, Stu Strebig.

Board Decisions

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

- February Board Meeting Minutes reviewed and approved. Ron Shipley/Kerry Powell: passed.
- Treasurer's Report reviewed and approved. Kerry Powell/Donna Ryan: passed.
- Motion to adjourn. Gene Hubbard/Donna Ryan: passed.

Action Items

Previous:

Larry Rothrock will explore the possibility of obtaining a new grant for a new flight simulator (pending).

Jimmy Kennedy and **Ron Shipley** will see if we can add more electrical outlets to our kitchen counter (in progress).

Gene Hubbard and **Larry Rothrock** will review the financial feasibility of exercising our lease option and present recommendations to the Board (pending).

Old Business

AAC: **Larry Rothrock** reported that at the March Airports Advisory Committee meeting there was no quorum and no board actions.

Ray Scholarship: **Trinidad Lopez** submitted a report via email on the status of our Ray Scholarship award. Our candidate was approved by EAA National and we should receive initial funding soon. Trinidad will request a delay on Ryan's flight training until our Chapter activities resume.

President **Gene Hubbard** adjourned the meeting at 1:29 p.m. via email.

Submitted by **Donna Ryan**

Kitchen Facelift



Gary List uses Chapter 14 down time to repaint our kitchen cabinets.

Dropcloths catch drips from the cabinets he had to paint in place.



And the doors he could remove he painted outside.

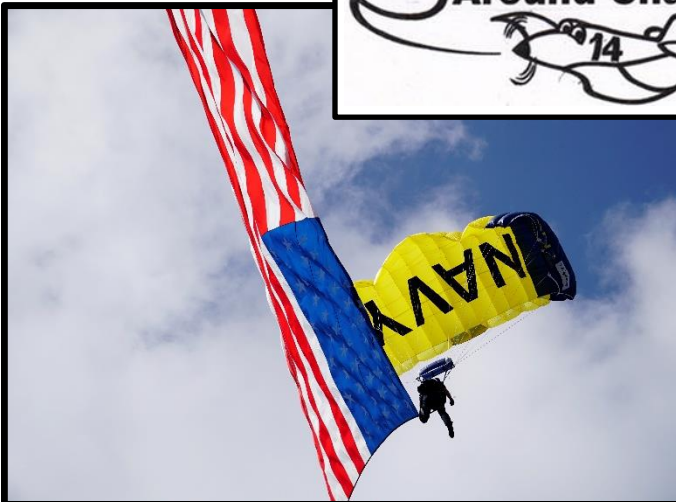


Thanks Gary!

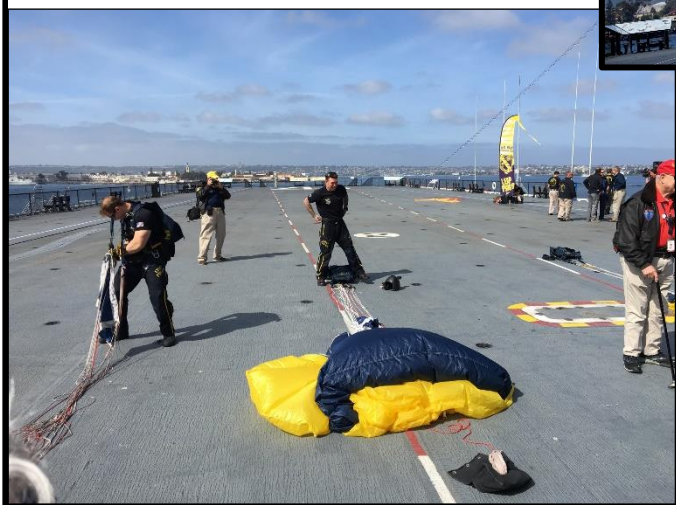
Marketplace

Engine for sale: Continental 0-470-7B (E-185-3). O SMOH. Rebuilt 1982. Documentation. Located in Ramona. \$9,000/offer. Text or call Dave at (619) 987-6398

Around Chapter 14



On Monday, March 4th, the US Navy Parachute Team, the "Leap Frogs," demonstrated two jumps onto the deck of the USS Midway Museum. Chapter member Jim MacKinnon was there to take photos.



April 2020

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.

Chapter Events

Open House at the Brown Field hangars:
every Saturday from 9:00 am to 2:00 p. Lunch at 11:30

Young Eagles Flights:
9:00-1:00 am, second Saturday of the month

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

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

Directors Meeting: after lunch in the library. 3rd Saturday

Hangar Phone:

619-661-6520

Contact:

Donna Ryan (Chapter Secretary)

(858) 273-4051. Leave voice mail or text.
eaal4contact@gmail.com

Director Name	Phone #	Email
Pete Grootendorst	(619) 370-4164	pjgrootend41@cox.net
Gene Hubbard	(858) 722-1918	nx421gn@gmail.com
Ted Krohne	(619) 435-8940	tedkrohne@hotmail.com
Jimmy Kennedy	(858) 274-6266	jk@kencomgraphics.com
Gene Lenard	(619) 442-4978	elenard@mac.com
Trinidad Lopez	(619) 661-7117	bajaassy@aol.com
Kerry Powell	(760) 613-4389	kgpowell@roadrunner.com
Jonathan Robbins	(619) 572-5087	snibbornoj@gmail.com
Kevin Roche	(619) 249-1285	tkevinr@rocketmail.com
Larry Rothrock	(619) 507-4455	rothrock@znet.com
Donna Ryan	(858) 273-4051	rryan@san.rr.com
Ron Shipley	(619) 857-5201	ronaldshipley@cox.net
Alan Sparkes	(619) 463-2648	alspa700@mac.com
Chuck Stiles	(912) 661-0486	hangarmanagereaa14@gmail.com
Stu Strebig	(619) 346-9788	trail2texas@yahoo.com

Experimental Aircraft Association
San Diego Chapter 14
1409 Continental Street
San Diego, Ca 92154-5707