



Spirit of Flight

Experimental Aircraft Association
Chapter 14: San Diego, CA

December 2019



Sydney and Charlotte with Dad's Luscombe. 11/9

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December 14th—Young Eagles Rally

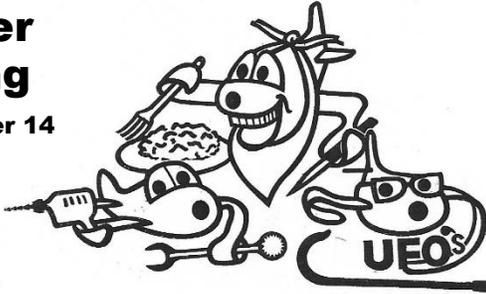
December 21st—Shairrie Van Duzer on Loss of Control

January 11th—Young Eagles Rally

January 18th—Ron Berinstein on Is Best Glide Speed – BEST?

Chapter Briefing

EAA Chapter 14
Members



Chapter Activities: Information provided by Chapter members.

Week ending Nov 2: Beautiful weather brought a number of Chapter members down to Brown Field to enjoy coffee and donuts provided by Director Trinidad López, and to indulge in lots of hangar talk. They then enjoyed a tasty lunch of cold cuts and chips served courtesy of Director Stu Strebig. Not much fly-in activity to the Chapter, but a steady stream of aircraft taking off and landing at Brown Field provided lots of material for discussion. Brown Field Operations staff worked on reprogramming our gate access entry system. Besides making necessary changes, testing by Ryan and the Operations staff revealed that due to weak Verizon signals, only the handset near the sink in Hangar 1 currently works to buzz people into the Chapter location. Apparently there is a recent issue with Mexico using the same frequency as Verizon and it is playing havoc with cell phone reception for everyone. Gleb Dorogokupets spent almost a whole day working on the wing walk on the Serendipity Club Cherokee – much appreciated by the Club members.

Jimmy Kennedy works on 220v wiring for our "new" compressor. It's quiet and provides enough air for a blast cabinet!
11/9



Week ending Nov 9: More beautiful weather saw members working on or flying their aircraft. Jim MacKinnon worked on his Nieuport, Gary List worked on the Colt, Mark Albert spent time on his RV-3, and Ryan continued working on a Corvaire engine – maybe for the Titan? Jonathan Robbins in his Luscombe took to the skies and Ryan provided several flights in his Dragonfly to a fellow member who wanted some time in a taildragger. Jimmy Kennedy started running a dedicated electrical wire to our compressor so it can provide more consistent power to our media blaster. The biggest activity of course, was our Young Eagles Day, this time centered around our Chapter mascot Charlotte Robbins, who had her 9th birthday party at the Chapter, along with lots of little friends, several of whom thoroughly enjoyed



Ron Shipley works on the 220v compressor wiring from the storage shed side. He also finished up the wiring for our large South Bend Mill in November.
11/9

their Young Eagles flights. Charlotte was especially excited to receive one of the Chapter polo shirts and she topped it off with a visit to the Tower – talk about a unique and exciting birthday party! Mollie Nunn provided a great birthday meal for the group and Chapter members: hamburgers, hot dogs, salad, as well as lots of sides and goodies, and, of course, cupcakes and a birthday cake. Trinidad López manned the grill and his wife Sharon provided much needed help, as always. Daughter Ashley was handling all the Young Eagles – we really appreciate the López family team spirit and energy.

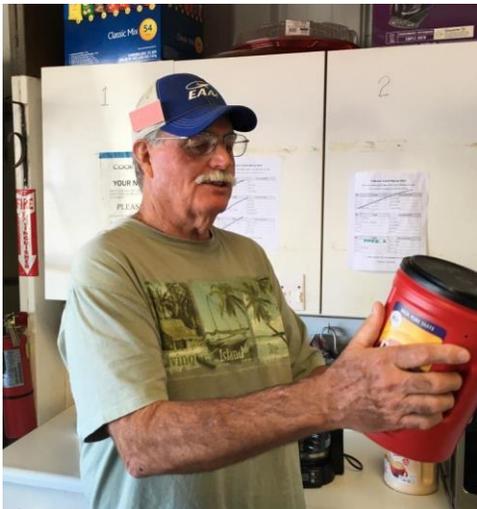
Week ending Nov 16: A busy Tuesday at the Chapter. Bob Soderquist visited from Colorado. He and Jimmy Kennedy traded highlights of the 2019 Oshkosh visit (both go every year). Dion Dyer was in from Texas. He finally got a ride in a Tailwind, but thinks it might be a bit snug for him. Now he is thinking about maybe getting an RV to use for flying off his time – good plane and good insurance rates. On Thursday, Dion Dyer, Gene Hubbard, and Ryan discovered a mutual interest in Corvaire engines. Gene had attended a Corvaire engine seminar, Dion had an engine, and Ryan has been tearing one apart. Ryan promised to make a rolling engine stand to test out the Corvaire engines. Jimmy Kennedy and Ron Shipley continued working on the



Charlotte visits the SDM tower on her birthday and learns how the controllers keep track of air traffic 11/9

dedicated electrical line for the compressor and finished on Thursday – thanks so much – we certainly appreciate your sharing your expertise. On Saturday, Kevin Roche and his son David once again showed they deserved their “Breakfast Heroes” nickname, cheerfully churning out blueberry pancakes, waffles, sausage, and eggs to order. The meal was much appreciated by several packed tables full of appreciative diners. Not to be outdone, lunch chefs Gene Hubbard and Lista Duran set out a delicious and filling banquet of meat or cheese lasagna, potato salad, green salad, fruit salad, and ice cream. Good thing they did – members needed the fuel to unload the last batch of landing mats. Gleb Dorogokupets missed out on the fun. He and a pilot friend took the Club Piper to Catalina for the weekend (think he got the best of the deal!)

Week ending Nov 23: Great news. Chuck Stiles is back from the wilds of Idaho – just in time for the Fire/Hangar Inspection on Tuesday. He and Ryan spent time on Monday making a quick, last minute check of the hangars to identify any obvious issues, e.g. missing drip pans under the engine, piggybacked extension cords, plastic fuel containers etc. On Tuesday, the Fire Marshall, our City Real Estate agent, and representatives from Brown Field Airport Operations toured our facilities to perform a joint fire inspection and hangar inspection. While we had a few minor infractions, all were easy to fix and the City team performing the inspection were very happy with how EAA 14 tries to follow fire safety and airport operations requirements. Pat on the back to all of our renters! On Saturday, Gary List served up an excellent lunch of taco salad to members and visitors. His home-made meat sauce was the best!



Brewmeister assesses the Chapter coffee supply on a fourth Saturday. 11/23

Week ending Nov 30: Back in 2015, EAA Chapter 14 selected Francisca Vanconcelos to receive a monetary award for her aviation-related entry in the San Diego Science Fair (we believe she was the overall winner as well). She had designed a drone controlled remotely by movement of the pilot’s body. She received a check for \$100 and a ride in Ryan’s Glasair. Fast forward to the November 25, 2019 edition of the San Diego Union Tribune and the front page has an article about her. She is now 21, a student at MIT working in the field of quantum computing, and has just been named a Rhodes Scholar, “widely considered the most

prestigious” fellowship of its kind. Well done, Francisca, and well done to our panel back in 2015: Ed Watson and Larry Rothrock. They knew how to pick a winner! Back at Chapter 14, Chuck Stiles and Ryan continued addressing the few areas noted by the Fire Marshall. One was the need to get a new hazmat sign for the container as the colors had faded. Fortunately, Donna Ryan had painted two signs several years ago when we were first advised to put up the sign, so it was easy to replace. Chuck decided to put up a couple of more signs to ensure everyone got the picture about the contents of the container, so Ryan made a new sign and prepped the old one for painting. Some rainy weather during the week didn’t prevent our hardy Chapter renters from working in the hangars: Mark Albert, Jimmy Kennedy, Trinidad López, Jim MacKinnon, Ryan, and Chuck Stiles. Incoming Treasurer Ron Shipley scored a great deal from Amazon on a new laptop computer which will be used by him and all successive Treasurers – no more need to buy accounting software for each new Treasurer – the computer with all of the Chapter data will just be passed along to the new Officer. Thanks to Gary List and to Ron for this cost-cutting, and way more efficient idea for handling our Chapter finances. Ron Shipley was also our chef for the day, putting out a much appreciated lunch of KFC chicken, mashed potatoes, coleslaw, and regular salad. Finger-lickin’ good.

General Meeting: President Gene Hubbard opened the meeting and welcomed over 40 Chapter members and guests. He asked new members to introduce themselves, and invited all in attendance to stay for lunch after the meeting. He also shared the sad news that long-time Chapter member Ray Cote had passed away. Joe Pribilo reminded the group of Ray’s many achievements, especially in the aircraft racing world. Ray had also donated many aircraft related items over the years to the Chapter, including the prop, made into a clock by member Chris Puntis, that hangs in Hangar 1. Ray was 94.

Meinolf Ruther reminded attendees to use only a competent mechanic to check out any possible aircraft purchases. Don’t just depend on the assessment of your good buddy (who isn’t a pilot or a mechanic) or on hearsay. He gave a recent example of someone who did just that – and now can’t find anyone who will certify the supposedly “great deal.”

Elections: All Officers and Directors listed on the 2020 Board of Directors ballots were elected; there were no contested ballots. Your officers and directors for 2020 are: President: Gene Hubbard; Vice President: Gene Lenard, Secretary: Donna Ryan, Treasurer: Ron Shipley. Directors: Pete Grootendorst, Jimmy Kennedy, Ted Krohne, Trinidad López, Kerry Powell, Jonathan Robbins, Kevin Roche, Larry Rothrock, Alan Sparkes, Chuck Stiles, Stu Strebis.

General Meeting Talk: Program Chairman Kerry Powell discussed upcoming programs and then introduced our speaker for the month, Rhon Williams. See a summary of Rhon’s talk, Electric Aircraft, later in the newsletter.



President's Message

Gene Hubbard



It's the end of the year already. Donna Ryan's "Way We Were" series (p. 8) is up to 2015, and the stories are beginning to sound recent. We'll finish the series next April with a review of 2019 and I'll be looking for newsletter content again.

Tell us about trips that you've made, experiences that you've had, things that you've learned while flying. I'm not going to copy other people's stories off the web.

We lost Ray Cote last month. Ray has been a fixture in the San Diego aviation community since the mid-1960s and still holds the record for the number of wins at Reno. I got to know Ray when Lista Duren was doing research for a book about him—some of the stories in the article on p. 6 come from her interviews. As a result I wound up working with his crew at Reno for a couple of years, he sold me the engine for my Pietenpol, and made a number of suggestions that made the Pietenpol a better airplane. I'm sure that he has assisted many others in the same way.

On another serious topic, the Chapter 14 Board of Directors has been discussing the need for hangar tenants show proof of liability coverage for their aircraft or projects (p. 11, New Business). This will result in updating our rental agreement to reflect this requirement and requiring that renters resign the lease and show evidence of insurance. Renters who currently own aircraft can name EAA Chapter 14 as an additional insured on their aircraft insurance policy; renters who have done this state that it doesn't cost extra. If the renter does not have current insurance on his aircraft, or if he is building a project, the renter can purchase a premises liability policy. One option is through EAA National's partnership with Falcon Insurance Agency to offer the EAA Aircraft Project Insurance Plan. As part of this insurance, the renter can opt for just basic liability insurance. This insurance runs about \$250 annually. Learn more at www.eaa.org/ea/pilots/ea-insurance-solutions. Other companies may offer premises insurance as well.

Finally, thanks to Jimmy Kennedy and Ron Shipley for their work in installing our "new" air compressor and vertical mill. The compressor now has a switch at the back of Hangar 2 and can supply air for continuous media blasting. Ryan identified a shiny new blast cabinet from a previous donation that is now set up at the rear of Hangar 2 with glass beads as the medium. No excuse for rusty parts anymore! Ron also completed the electrical work to operate our big South Bend mill in Hangar 3. We're still working to identify the additional accessories and missing parts needed before making swarf.

Remember, our membership year runs from January through December, so get your renewals in early and have a good holiday season.

Gene Hubbard

Young Eagles Report

Ashley Lopez



Our last Young Eagles event took place on November 9th. In total, we flew 22 Young Eagles. Many of our guests were first time flyers and were very excited for the experience! Thank you to our pilots Chris Constantinides, Ron Shipley, Jonathan Robbins, and Ted Krohne for making this event happen, we couldn't run these programs without you! Planes in attendance included a Piper Turbo Arrow, Aircoupe A-2, Luscombe 8E, and Baron B-55 belonging to their respective owners. During this event Jonathan also surpassed his 100th Young Eagle flight, so a special congrats to him.

This Young Eagles event was also special in that we helped host Charlotte's birthday. She is the daughter of Young Eagles pilot, Jonathan and always a great help to our program. As a gift, both Charlotte and her older sister Sydney received volunteer polos for their birthday- Sydney also has a November birthday which soon followed. A few months earlier they had told me how much they wanted to match their dad and couldn't wait until they were big enough to get adult polos too. They were both wearing their new Chapter 14 Polos within minutes of unwrapping them so I'm sure they will be well loved.

This month our ground support team included Ryan and Pedro Flores, Nick Candrella, and Gleb Dorogokupets. We were also joined by Nick's sister, Lina who graciously volunteered her afternoon to help us while visiting from out of town. Shout out to Ryan for his pre-flight briefing and helping our visitors on the flight simulators. A young boy around the age of ten told me how much Ryan had helped him throughout the day, so he's setting a great example. As always, Nick and Gleb took some great photos.

Ashley Lopez



Ted Krohne explains how aircraft fly before starting a Young Eagles flight. 11/9



Ray Cote (1925-2019)

Gene Hubbard & Lista Duren

We lost Ray Cote last month. Ray has been a fixture in the San Diego aviation community for over 60 years and a long-time member of EAA Chapter 14.

Ray got bit by the aviation bug in about 1931 when he was six and got his first airplane ride in an open-cockpit Alexander Eaglerock biplane when he was nine. Like many of us, he built and crashed a lot of stick-and-tissue airplane models as a kid—he said that he built about one a month.

Ray's father left the family when he was still a kid, and Ray dropped out of high school in eleventh grade to help support his family by working the night shift for Pratt & Whitney in the engine test cells. He got his high school equivalency certificate and enrolled in the Navy V5 pre-flight training program for students who wanted to become Navy pilots.

In 1942, six months after enrolling in V5, Ray got called up and joined the Navy during WWII, the first of three wars he fought in. In the Navy, Ray trained in N3Ns and Stearman N2S biplanes and the North American SNJ advanced trainer. He flew Douglas SBDs and Vought F4Us, and later Grumman F8Fs, training Navy pilots during the Korean war.



#44 Judy at the EAA Hangars, maybe at the 1982 Brown Field Air Race.

In 1953, Ray's commander offered him the opportunity to go to Indochina as a military advisor and instruct French pilots in Bearcats. As part of his training role, he flew an OPFOR Spitfire against his students in simulated combat, and he claimed to have given "advice under fire" on how to bomb the Vietminh who were shooting at them. After the fall of Dien Bien Phu in 1954, Ray separated from the Navy and looked for ways to make a living by flying as a civilian.

He operated an air taxi service in Los Angeles. He taught himself skywriting and worked for the car / TV / audio / cellphone huckster Madman Muntz. He flew horseracing newspapers between Los Angeles and San Diego. He went to the Glendale School of Aeronautics in Van Nuys to get his A&P Certificate: "If I'm going to fly a plane, I'm going to know how it works."

Ray joined Teledyne Ryan in 1964, becoming T. Claude Ryan's personal pilot and occasionally acting as test pilot for Ryan aircraft. In 1977, on the 50th anniversary of Lindbergh's flight across the Atlantic, Ray set a world distance record by piloting a Ryan Cloudster 1,700 miles from Mirage, CA to Oshkosh, WI using only 28 gallons of fuel. Also for the 50th anniversary of Lindbergh's flight, Ray flew the Spirit of St. Louis replica built by the San Diego Aerospace Museum. Ray said that he learned to fly without forward visibility by hanging a curtain in front of the rear seat of the Aeronca towplane at Torrey Pines. He said that flying the replica gave him a unique appreciation of Lindbergh's experience over the Atlantic: "It gave me the thrill of knowing *exactly* how he felt in that airplane."

Ray may be best known for his participation in Formula One air racing. He said that he bought Shoestring and started racing because he was looking for a family project. Along the way, he won a record 13 National Championships at Reno between 1968 and 2000. Ray was known for taking good planes and making them faster. He won eight times in a row with the original "Shoestring" from 1968 through 1975, a little bit faster each year. He flew "Judy" from 1982-1986 winning twice at Reno. He bought "Alley Cat," his third race plane in 1987, won at Reno in 1989, sold it in 1990, bought it back in 1995, and won again in 2000 at 245.912 mph, his fastest winning time ever.

Ray made his mark on Chapter 14 too. He donated the propeller from Shoestring that now hangs as a clock in Hangar 1, he donated a large amount of (expensive) 2024 Alclad sheet to the Chapter, and he was always ready to share what he knew with builders. We'll miss Ray.



Shoestring at the race start. Gladys Cote holding the tail. Photo by Ron Chausse, from Cote family archives.

Electric Aircraft

Summary By Donna Ryan

The following information is based on the program talk given by Rhon Williams

EAA Chapter 14 enjoyed a fascinating talk given by Rhon Williams on a wide variety of aircraft which use electric motors. Rhon is a FAAST Representative with over 40 years and 3,000 hours of flying. He holds a variety of ratings, including Commercial-SMEL, Helicopter, Glider, CFI-AIG and A&P mechanic. He completed a plans-built Early Bird Jenny in 2015. Contact him at rhon.williams@verizon.net

Please note: This summary is just a sample of the many points discussed by Rhon; in addition, this is a fast changing field, so specifications are liable to change. During his talk, Rhon discussed the many applications for these aircraft, as well as the advantages, disadvantages and tradeoffs. Most of these were capable of carrying people and all used either a battery or were a hybrid using an electric motor. Some of the craft could be piloted, but some were autonomous. Rhon did not cover the following: Unmanned Aircraft Systems (UAS), electric powered sailplanes, solar powered, fuel cell, or any still in just the R&D phase. Rhon mentioned several groups that focus on electric aviation: CAFÉ Foundation – EAS, Sustainable Aviation, and the Vertical Flight Society, which publishes the Vertiflite magazine.

Electric aircraft can be used in a variety of settings, including general aviation, light sport, transport, air taxi, or training. Lower cost and lower noise are critical in all applications. Rhon began his talk with a listing of the general advantages such aircraft could offer. For example, for the category Urban Air Mobility (UAM) or air taxi, such advantages included:

- Low operating cost (fuel and maintenance)
- Lower noise level
- Short range not a problem
- Potential for Vertical Takeoff and Landing (VTOL)
- Charging infrastructure available
- Amenable to autonomous operation

Many businesses are interested in the field and are funding research. Within two years, the number of electric aircraft in development has grown from 50 to 189. There are also many ongoing tradeoffs such as: hybrid versus pure electric, pilot versus autonomous. While there is great industry interest, one dominant vehicle configuration or propulsion system has not yet emerged.

Rhon then listed some general disadvantages and critical tradeoffs:

- Certification challenges. Note: The FAA is actually moving very fast in this area.
- Public acceptance as to safety
- Airspace congestion. Note: New York has the first corridor to allow UAMs.
- Excessive hype
- Charging time



November speaker Rhon Williams poses with Program Director Kerry Powell. 11/23

For a personal or LSA option, another disadvantage would include the short range and lack of charging locations. Critical tradeoffs in the area of electric aircraft include:

- Weight, weight, weight
- Safety – public has to perceive them as safe
- Endurance (1 hour is current capability, – 4 or 5 hours is not feasible yet)
- Hybrid versus pure electric
- Redundancy
- Open prop versus ducted fan
- STOL (Short Takeoff and Landing) versus VTOL
- Tilt rotor versus fixed wing versus hybrid.

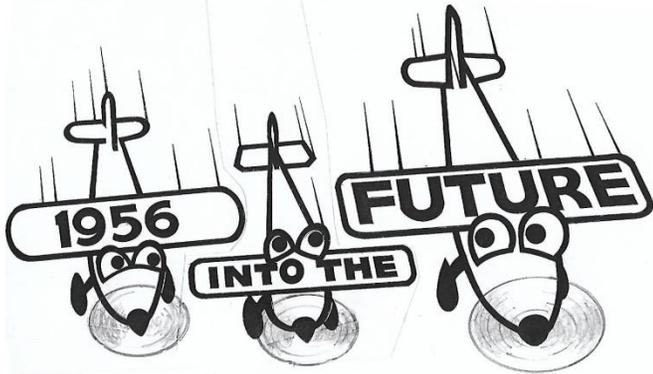
After giving an overview of electric aviation, Rhon then discussed specific electric aircraft. He showed a series of slides for a variety of current aircraft powered in some way by an electric motor. Some are prototypes, some are flying, and some are in production. Each slide had a picture of the aircraft and then a box containing the features of this particular aircraft, i.e. range, number of passengers, etc. Rhon had compiled this information himself from a variety of sources – and we certainly benefited from all this research. The slide also contained links to YouTube videos or the aircraft company's website. He played a number of these videos – all of which you can see for yourself by entering the name of the aircraft on the internet. You will be able to spend a very enjoyable afternoon looking at the videos and reading up on these innovative aircraft. Listed below are just a few, with one or two specs for each one.

- Aeromobile 3.0: Video shows the car driving on the road, arriving at the airport, opening up its wings, and then actually flying. After it lands, the wings collapse and the aeromobile drives away.
- Astro-Elroy: It is an autonomous eVTOL transport vehicle, with two seats, an onboard joystick and 16 individual propellers and 16 motors.
- Bye Aerospace – the Aerospace eFlyer. The company envisions it as being used for training or as a personal aircraft. The company claims 300 are on order, including 60 already sold to a Norwegian flight school. One big advantage for flight training is that electric aircraft are much cheaper to operate than conventional aircraft. First flight was May 2019 and certification is very close. It is powered by a Siemens motor. Current price is \$289,000 for the eFlyer 2.
- Lift Aircraft -HEXA: This is a single space amphibious ultralight which has flown. It is operated by a joystick and has 18 motors/propellers. It is compliant with the powered ultralight classification which means no pilot's license is required.
- Opener Blackfly: This is an amphibious one person personal air vehicle. It was on display at Oshkosh and has a very unique way of landing –it tilts down and lands on its belly. It is a very distinctive design.
- Pipistrel - Alpha Electro. A two-place trainer LSA, it is in production and 6 are operating in California.
- Sonex E-Flight electric WAIEX: 1 seat, with what looks like a V-tail, although the company calls it a Y-tail.
- Workhorse-Surefly: It is a hybrid electric VTOL multi-copter with 8 rotors, each driven off of an independent electric motor.
- TF-2: This flying car by Terrafugia has a unique docking system. The car part can drive to a vertiport, dock up to the aircraft portion and then the aircraft portion disengages and flies.
- Bell prototypes: The first prototype is the Bell Nexus. This Urban Air Vehicle (UAV) can carry 3 passengers, plus the pilot. It is a 4 propeller tilt rotor. Bell also has an autonomous pod transport designed for military and civilian logistics. It can make deliveries and drop supplies. There are several versions in test. It also has 4 props.
- Boeing Aurora personal air vehicle: 4 seats, 9 props, hybrid wing/VTOL configuration. It recently crashed during a test flight when one of its propellers failed.
- Ehang 184: A Chinese 2-passenger VTOL which is completely remote controlled.
- EVA (Electric Visionary Aircraft) X01: 2 seats, 26 fully electric propellers. Claims to produce no more than 79 db of noise.
- Embraer Dream Maker: There are 2 models in development. The larger one has high canard wings and 8 propellers for vertical flight.
- Eviation – Alice: This concept is still in development, but is planned to be used as a commuter for short flights. Some specifics: 4 seats, 3 props/motors.
- Joby Aviation: Not much is actually known about this plane. Its design has been kept very secret, but it seems to be well along. However, the company was started by JoeBen Bevirt who partnered with NASA on the X57 Maxwell and he now has \$100 million to go into production. One description says it is a 4 seat fixed wing, with a speed of 200 mph and 14 propellers.
- Kitty Hawk Cora: An autonomous air taxi, the company is backed by Larry Page of Google. It has 13 props and has been conducting flight tests in New Zealand.
- Lilium Jet: Claims to be first all electrical VTOL Jet. With \$90 million in funding so far, it has 5 seats. Rhon pointed out that it really is a ducted fan system, not a jet. Watch this video – very odd looking wings.
- Vertical Aerospace: This is a UK eVTOL designed to be a personal, on-demand industry taxi service vehicle. It is powered by 4 propellers.
- Volocopter: This is a German VTOL with 18 propellers attached to a circular structure above what looks like a standard helicopter below.
- XTI Aircraft Company - Trifan 600. Pilot plus 5 passengers, hybrid electrical. Designed to be high-speed. It has 3 ducted fans.
- Zunum Aero: Partnered with Boeing and Jet Blue. Plans to handle long-range commercial flights, maybe a 700 mile range. It has 2 ducted fans.

Rhon then discussed briefly a variety of other electric aircraft prototypes. He shared brief internet videos of these as well. These are not quite as far along in development as those above. Only a few of the specifications are included here as they may have already changed. Take a look on the internet to see more information and be sure and watch the videos of these different aircraft – there are some very unique designs.

- Airbus has two prototypes. The first is the Airbus E Fan X. It looks like a concept for a commuter aircraft with a fixed wing. The second prototype is the Airbus Vahana. This is a self-piloted eVTOL for UAM. It is an electric aircraft powered by 8 propellers. The customer would order a flight, go to a vertiport, get inside and then the plane automatically performs safety checks, such as detecting birds or other planes.
- Ampaire Tailwind: Concept plane holding up to 9 passengers, designed to be a regional airliner. It has 2 ducted fans.

Answering questions at the end, Rhon stated that if you want to go fast, you need fixed wings. Also, true VTOLs don't have option to glide.



The Way We Were: 2015

Donna Ryan

General

- Officers/Assignments: President: Joe Russo; Vice-President: Richard Kalling; Secretary: Donna Ryan; Treasurer: Gary List; Newsletter Editor: Gene Hubbard; Hangar Manager: Ryan; Young Eagles: Mark Albert
- Aircraft worked on during the year: Sparrowhawk (replace a Rotax 582 with a Continental O-200), Tri-Pacer, Pietenpol, Nieuport (airframe, attaching a VW engine), Stits Playboy (fabric covering the wings), Super Velocity (brought in for weight and balance before final inspection by FAA), Titan Tornado, RV-3 (tachometer indicator- mechanical one finally replaced by electronic version). Sonex (new tailwheel).
- Organized much needed cleanup of Hangar 3 – mostly from donated items that hadn't yet found a home. Hangar 12 was widened, hangar 4 was made deeper.
- Pazmany plane donated to Chapter 14.
- Installed tie-down cables on the Old Charlie ramp. It involved lots of post holes being dug, then filled with concrete with embedded re-bar.
- Replaced battery on existing AED, rather than buying a new one.
- Sign advertising EAA was put up on the fence facing Britannia.



Ryan shows off the O-200 engine conversion on his Sparrowhawk.

- Jonathan Robbins began assisting as one of our regular Young Eagles pilots, joining existing pilots Pete Grootendorst, Ted Krohne, Gil Rud, Duane Shockey, Vince Flynn, Ron Shipley, and Ryan.
- New durable aluminum windsock put up over Hangar 1 to replace the fabric ones that seemed to disintegrate within a year or so.
- Metal signs were made up to identify each hangar by number. They were attached to the front of the hangars.
- Inside of the Eagles' Nest got a new paint job, as well as new pictures and displays, more simulators, surround-sound system. Roof of Eagles' Nest was water-proofed.
- Secured a donation from the USS Midway Museum of a new high-performance PC to run our flight simulators. More computers were purchased for the flight simulators.
- All the hangars around Hangar 3 were power-washed and painted.
- Wired new entry alarms for the Eagles Nest and Hangar 2.
- Installed new LED lights around Hangar 3.

Gone West

- Bruce Hanna passed away. He donated his Thundergull and numerous tools and parts to the Chapter; he also volunteered to help on a variety of Chapter projects and served as a Director. What most people didn't know was



Chapter members admire Jeff Schuster's new Super Velocity prior to FAA inspection.



Stan Bell, one of Chapter 14's longtime Young Eagles pilots, donates his Stinson 108 Voyager to be used to support the Chapter Young Eagles program. Many kids got their first plane flights in the Voyager; many other benefitted from its donation.

that in World War II, he was a naval officer and fighter pilot who flew off the original Enterprise aircraft carrier and the Lexington in the Pacific. Attached to Air Group 20, he piloted a Grumman Hellcat and shot down three airplanes, destroyed four on the ground and damaged several others. He also damaged two destroyers and three cargo ships by strafing. He collided with a Betty twin-engine bomber during the engagement. The collision knocked off his right wing. Bruce bailed out of his plane, hitting his head on the canopy which was stuck partially open. The blow broke so many blood vessels in his eyes that he was temporarily blinded for several days. His life raft automatically inflated and he then spent 65 hours in a life raft with no food or water, without being able to see, before one of our planes spotted him and sent a destroyer to his rescue. For his service, he received a number of awards.

- Rik Keller passed away. He was a long-time Chapter who contributed a number of technical articles to the newsletter. One example was a spreadsheet for calculating weight and balance which greatly simplified the process. Among other achievements, he built a Thorp T-18 and he



EAA Trimotor at SEE in 2015 on a rare West Coast tour.

was the driving force to locate and purchase a club taildragger for what eventually became the Serendipity Flyers Club.

Events:

- Programs included: Android EFB (electronic flight bags); Recognizing and combating complacency in the cockpit; Bush-flying in southern Africa; Currency, proficiency, and aging pilots; Airworthiness, ADS-B, Flying with GPS, Berkut design and aerodynamics; Negotiating FAA paperwork for store-bought airplanes. (Dennis Cullum commented "It certainly makes building your own airplane look more attractive all the time, with much less hassle when making modifications."); Surviving Ditching at Sea; Experiences as a P-47 Thunderbolt pilot in the latter days of WWII; Dangerous Pilot Attitudes; Communications; Emergency Landing Practice; Vision for San Diego airports by the Deputy Director of Airports.
- Brought over two additional hangars donated by various groups at Montgomery and one from Spiders. Much prep work was involved to get them ready to move.
- Stan Bell, a previously very active YE pilot, donated his Stinson Voyager to the Chapter. He wanted the proceeds from the sale to go towards the YE program. This really helped us to upgrade our facilities and equipment.
- We had a very active Young Eagles program, flying Young Eagles and Eagles each month. As an example, we hosted 30 Navy Flying Midshipman cadets one month—these young men and women were already far along in aviation knowledge, and were studying for the private pilot exam. Another month we hosted a large Sea Cadet group and a Young Optimist group.
- Supported the Commemorative Air Force air show at Gillespie Field. In addition to our build-a-box projects, we brought over the "Teenie Two." Both were great draws for the kids – lots of photos taken in the cockpit of the Teenie Two. The box building project was designed to teach the rudiments of metal-working to kids of Young Eagles age. The idea was for them to form a small box from aluminum sheet, which required bending of prepared blanks into a box format, then drilling holes at the corners to hold it together with rivets, using a rivet squeezer.
- We participated in the Ramona Airport Open House in November. Besides flying over 28 Young Eagles, we hosted a Chapter booth.
- Held fly-outs to Apple Valley, Chiriacco summit, Flabob, French Valley, Brackett, Cable, Big Bear.
- Hosted the Ford Tri-Motor tour stop at Gillespie Field. This was the first aircraft designed from the start to carry airline passengers. The plane and crew were present for 3 days offering rides costing \$70 for adults and \$55 for kids.
- Served a special St. Patrick's Day meal of corned beef and cabbage
- Provided an award for the Greater San Diego Science and Engineering Fair – award for best project concerning aviation. Winner received check for \$100 and a YE ride.



Former Hangar Manager Rich Czarniecki ran an active fourth Saturday flyout program for the Chapter in 2015. Here's the group at Apple Valley.

- Jonathan Robbins' Luscombe joined the aircraft hangared at the Chapter.
- Mark Albert bought his RV-3 and hangared it at the Chapter.
- First flights for Rudy Davila's and Clint Martin's newly completed Vari-Ezes.
- Jerry Boughner's Tiger Moth was used in a Taylor Swift music video entitled "Wildest Dreams".
- Awards Banquet was held at Casa Machado.

Newsletter

- Feature Articles:
 - Reminiscences of the Greatest Century of Flight by Bob Johnson;
 - Replacing Wheel Bearings;
 - Rare Bird (purchasing, modifying a Sparrowhawk);
 - Bye-bye Elephant Cage (removing the big circular antenna array just north of Imperial Beach – later to become master campus for SEAL training);
 - Review of the book Bill Brennand: Air Racing and Other Aerial Adventures;
 - Introduction to new Deputy Director of Airports; report by Mark Albert on a visit to the Devon Strut UK;



Bob Johnson made the United Flying Octogenarians (UFO) meetings on fifth Saturdays into an event for the entire Chapter. UFOs and "UFOs in training" (the young 'uns) got a review of history from the people who made it.

- Overview of the San Diego Ultralight Association lease issues;
- Ultralight Fly-In at Nichols field;
- Overview of the upcoming runway 8L/26R refurbishment, Troubleshooting Avionics Problems;
- Account by one of our Young Eagles of a flight with Sean Tucker, the world-renowned aerobatic pilot (and EAA National Young Eagles Chairman for the year); account by former Young Eagle Tristan Werner of his participation in the aviation program at the University of North Dakota. He started flying at age 10 with our YE program and at 18, began pursuing his passion to be a commercial pilot;
- Reg Finch's review of the Folland T-1 Gnat;
- My First Airplane Ride by Joe Pribilo;
- IMC Clubs Join EAA.



Young Eagles Coordinator Mark Albert receives a special Chapter award from President Joe Russo for his work on the Young Eagles program in 2015

- Highlights from meeting presentations:
 - Aging Pilots
 - Berkut Design
 - UFO talk by the Air Boss of the Midway during the evacuation of Viet Nam back in April 1975;
 - Surviving Ditching at Sea
 - Polishing your Communications
- Variety of Tech Tips articles by Richard West. Topics included: Electrical Shorts, Replacing Control Cables, Batteries, Battery Cables;
- Regular features:
 - Dennis Cullum's very detailed Chapter Checkpoints overview of Chapter activities,
 - Mark Albert's Young Eagles report,
 - Joe Russo's President Report,
 - Kerry Powell's Upcoming Program Notes, and
 - Donna Ryan's Board of Directors Minutes.

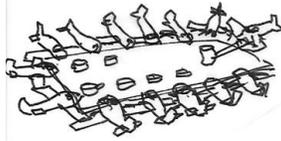
Numbers:

- Number of members: 183 members as of December
- Awards Banquet Cost: \$20 a person
- Young Eagles flown for the year: 328

November 2019 Board Meeting

Donna Ryan, Chapter 14 Secretary

Provisional Minutes – Pending Board Approval



The meeting was called to order by President Gene Hubbard at 12:42 pm.

Directors and officers present: Pete Grootendorst, Gene Hubbard, Jimmy Kennedy, Ted Krohne, Gary List, Trinidad López, Kerry Powell, Jonathan Robbins, Kevin Roche, Donna Ryan, Alan Sparkes, Ron Shipley, Stu Strebig.

Directors and officers absent were: Gene Lenard, Larry Rothrock (excused), Chuck Stiles (excused). Guests: Ryan.

Board Decisions

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

- October Board Meeting Minutes reviewed and approved. Kevin Roche/Pete Grootendorst: passed.
- Treasurer's Report reviewed and approved. Kevin Roche/Ron Shipley: passed.
- Authorize our application to the matching Ray Scholarship program; commit \$5,000, on a one-time basis, as our portion of the matching program. Stu Strebig/Ron Shipley: passed.
- Motion to adjourn. Kevin Roche/Stu Strebig: passed.

Action Items

Previous:

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

New:

- **Trinidad Lopez** will identify a new date for a possible Borrego Springs fly-out/campout (pending).
- **Kerry Powell** is putting together comments on what content we would like to see on the website and how we will host it/redesign it (pending).
- **Donna Ryan** will write up information for the newsletter concerning hangar liability insurance (closed).
- Contact EAA National for additional information on hangar liability insurance (pending). See New Business.
- **Trinidad López** will apply, on behalf of the Chapter, for the matching Ray Foundation Scholarship program (closed).
- **Trinidad López** will ensure our application for the regular Ray Foundation Scholarship is still in place and will reapply, if necessary (pending).

- **Ron Shipley** will purchase a modestly-priced laptop and load our accounting software and Chapter financial data on it.
- **Donna Ryan** will review previous Board Meeting Minutes to see if the Board authorized placing a portion of Chapter Funds into a one-year CD (closed – the Board passed such a motion in November 2018)

Reports

AAC Meeting: **Gary List** discussed the content of the November AAC meeting. He has submitted an application to be a member of the Committee.

Old Business

October Fly-out: **Trinidad López** will explore options for holding the Borrego Springs airport fly out/campout sometime in the next several months. He plans on driving over and bringing the food whenever the date is set.

New Business

Web site: **Kerry Powell** is pulling together the responses concerning website content. He is also looking at how we want to host the website and handle the redesign.

Hangar Insurance: The Board agreed that renters should have hangar insurance to relieve the Chapter of any liability. To meet this requirement, all renters with aircraft or projects in hangars would need to have basic liability insurance and would need to show proof of such insurance. Renters who currently own aircraft can name EAA Chapter 14 as an additional insured on their aircraft insurance policy. **Donna Ryan** reviewed information from EAA National on builder's project insurance (basic liability insurance costs \$250 a year). Other options may exist for premises liability. When implemented, our rental agreement would be updated to reflect this and renters would be required to resign the lease. **Trinidad López** stated he would contact EAA National once again to see the details of our EAA National insurance policy. Later note: **Donna Ryan** followed up with EAA National on additional questions. Further issues arose during the conversation concerning our actual coverage. **Donna Ryan** is working with EAA National to resolve the issues.

Ray Scholarship: **Trinidad** provided information to the Board on the recent EAA National webinar he attended concerning the Ray Scholarship. He discussed possible methods to make our application more attractive. He felt it would be beneficial if we added activities for our Young Eagles program in addition to our monthly flying event. Possibilities include day camps, ground schools, and aviation-related education workshops. He will also mention that we have 3 known Young Eagles that have gone through our program for 8 years or so, being mentored by our volunteer pilots; these Young Eagles now have their licenses. Two are currently pursuing advanced education in aviation – and one flies Young Eagles when he is in town. Trinidad also discussed the new matching grant program offered by EAA National. If selected for this option, the Ray Scholarship Foundation would fund \$5,000 for a

scholarship option, and the chapter would match that amount for a total of \$10,000. The Board discussed in detail how valuable the Young Eagles program was to our Chapter as part of community outreach. A motion was made to authorize an application to this matching Ray Scholarship option and to commit \$5,000, on a one-time basis, as our portion of the matching program.

Treasurer's Laptop: **Ron Shipley** and **Gary List** had discussed the advisability of purchasing a laptop with the appropriate accounting program on it for use by whoever is the Treasurer. When a Treasurer leaves the position, the laptop, along with the applicable software program and our Chapter financial records, would be given to the new Treasurer. This would save money and provide continuity. The Board agreed this was a good idea. **Gene Hubbard** stated he had a Linux laptop, which he had purchased from the Chapter, and would donate it back. **Jonathan Robbins** noted that Linux has an open source program called Open Office Accounting 2.0 which could be loaded onto the laptop at no cost. After the meeting, it was decided that because of the need to manually input the extensive financial data if we went with the Linux laptop/Open Office option, it would be preferable to purchase a modestly-priced laptop and load our current accounting program on it. **Ron Shipley** identified a suitable laptop and will download the accounting program and previous accounting data.

Elections: All officers and directors listed on the 2019 ballot were elected. Officers and Directors for 2020 are: President: Gene Hubbard; Vice President: Gene Lenard; Secretary: Donna Ryan; Treasurer: Ron Shipley. Directors: Pete Grootendorst, Jimmy Kennedy, Ted Krohne, Trinidad López, Kerry Powell, Jonathan Robbins, Kevin Roche, Larry Rothrock, Alan Sparkes, Chuck Stiles, Stu Strebig.

President **Gene Hubbard** adjourned the meeting at 1:50 pm.

Submitted by **Donna Ryan**



Sunset flight in the Serendipity Cherokee. Gleb Dorogokupets took this photo overlooking the South Bay Salt Works. 11/9.



Kerry Powell, Program Chairman

Descriptions from the announcement on faasafety.gov:

December: Shairrie Van Duzer, Loss of Control. CFII - Shairrie Van Duzer will discuss avoiding Loss of Control situations. She is a CFII, ASEL, MEL. 4700 hrs. She is owner of C182, C172. She is a Cessna trained G1000 instructor, volunteer, Check Pilot Examiner for Civil Air Patrol, USCG AuxAir, Wings of the Way, and Angel Flight.

January: Ron Berinstein, Is Best Glide Speed – BEST? What Can We Do to achieve the best possible results for a safe landing when engine power goes on vacation?

A forced landing off field is probably not one of most pilot's favorite thoughts, but if we are not prepared, we won't have a second chance! Most schools teach "Best Glide Speed" as a critical part of the survival equation; and well it is. However, is there more to the story? Is Best Glide always the Best answer?

Ron explores the factors you need to consider when making the decision to land off field with the expectation that no one will be injured. Upon thinking about it, THAT may be one of the MOST IMPORTANT goals any pilot can have!

Ron is a CFII & Aerobatic & FAA Wings Master Pilot. Hopefully, everyone will discover something that will improve their own pilot skills and knowledge bank.

New Members

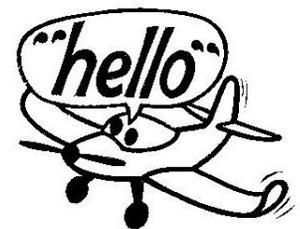
Donna Ryan

Welcome to our new members. The information below comes from their membership application. Some people just include the essentials; others expand a bit on their experience and we always appreciate that.

Look for them at the next meeting, introduce yourself and get to know them better. We very much appreciate their support.

While **Nick Candrella** doesn't currently have an aircraft project or plane, he has engineering knowledge he is willing to share as well as general aviation knowledge – skills that are always welcome here at the Chapter!

Steve Kennedy is a private pilot with an SEL rating. He flies a Cessna 182 now tied down at EAA 14. We look forward to seeing him more around the Chapter..





Time to Renew Your Membership

Donna Ryan, Chapter 14 Secretary

It's time to renew your membership in EAA Chapter 14. But you might ask, what are the benefits of renewing your membership?

If you are fortunate enough to come down to the Chapter on a regular basis, you already know the benefits: enjoy talking to fellow aviation buffs, share a tasty and inexpensive Saturday lunch (as well as a pancake breakfast once a month), participate in several of the building projects going on, see some beautiful planes, keep up your skills on our simulator, check out our extensive aviation library, rent tie-down or hangar space at an affordable rate. And you can get Wings credit for many of our monthly programs.

But even if you aren't able to come down to the Chapter as often as you would like, you still benefit. The Chapter actually has a physical location which can host aviation events, such as the San Diego Aircraft Advisory Committee (AAC), or FAA seminars. Your membership dues help pay for this location. Our Chapter has a very active Young Eagles program: your membership helps pay for supplies and the facility, as well as our outreach to the community.

As you know, general aviation is facing many challenges from possible government restrictions and local business decisions. EAA 14 has fought hard to preserve a place for general aviation in the San Diego area and to make it stronger, safer and more affordable. We represent a vocal and concerned group of citizens. Your membership contributes to and strengthens our voice.

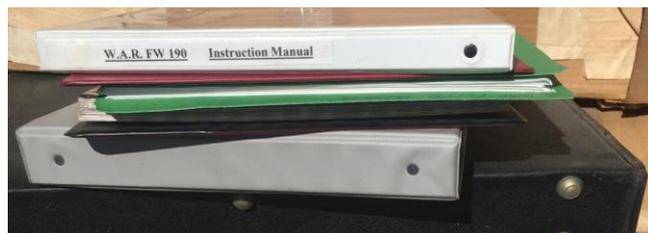
We want to grow our membership, provide aspiring builders and pilots with the support they need to achieve their goals, and help both young people and adults learn about the joys of flying. But we can't do it without your continued support. Please help us by renewing your membership in EAA 14. It will take just a minute, but it will pay dividends for Your chapter throughout the whole year.

Use the Membership form included in this newsletter and then mail it back to us, along with your payment, to EAA Chapter 14, 1409 Continental Street, San Diego, CA 92154-5707. You can also drop the form and your payment off at the Chapter; put your packet in the mail slot of the Membership lock box next to the lunch counter.

The PayPal option for renewing your membership is currently not available. We hope to have this function up and running again soon.

Marketplace

Wanted: Looking for a builder who would like to complete this donated W.A.R. FW 190 project (a half-scale homebuilt replica of a Focke-Wulf W 190 fighter per Wikipedia). Have documentation and plans. Make offer. Text or leave a voice mail: Ryan (858) 229-4875. (1911)



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 (1911)

Wanted: Tail Dragger Instructor. Please contact Wayne Tyson at (619) 876-6761. He is hangared at Gillespie. He has a Zenith CH 750/2, and a Highlander. He is also looking for people to share stick time in his airplane. (1906)



Charlotte's birthday party participants. Everyone got to fly, but I'm not sure that this cake was big enough. 11/9.

EAA Chapter 14 Membership Application/Renewal

Please Print Legibly

Current Member					
Name	E-mail			EAA National # /Exp Date	
Emergency Contacts (Name and Phone)					
Please check the box if there have been no other changes in your details since your last renewal. Otherwise, please update the applicable fields below. <input style="float: right;" type="checkbox"/>					
New Member/Updates for Current Member					
Name (Mr., Mrs., Ms.) <i>Please Print</i>				Name to Use on Badge	
Street Address				E-mail	
City	State	Zip	Spouse/Partner Name		
Home Phone		Cell Phone		Work Phone	
Year of Birth	EAA National #/Exp Date	Occupation		Retired – Yes/No	
Emergency Contacts (Name and Phone)					
FAA Ratings – Licenses Held		A/C Project		Aircraft Owned/Home Field	
Special Skills You Can Contribute to the Chapter					
Special Interests					
Payment Information					
New Member: \$35 (\$22.50 after July 1)		Renewal: \$25 (due Jan 1 st)		Youth (under 18): \$5	
Payment Enclosed \$ _____ Make checks payable to EAA Chapter 14.			Please mail this form with payment to: EAA Chapter 14 1409 Continental Street San Diego, CA 92154-5707		

Around Chapter 14

Photos by Chapter Members



Two canards: Bill Ingrahm's Long Eze and Ryan's Dragonfly. 11/9



Ray Cote and crew in clown suits with Shoestring while promoting Circus Circus at Reno in 1978.



Mark Bowman visits Chapter 14 with his de Havilland Chipmunk in 2015.



Ryan and Pete with matching casts. 11/16



Charlotte and friend in Dad's Luscombe. 11/9



Blackhawk in flight 11/11



Ted Krohne and YEs go flying. 11/9



Charlotte unwraps presents. 11/9

December 2019

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
Gary List	(619) 482-0227	glist@cox.net
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 Strebog	(619) 346-9788	trail2texas@yahoo.com

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