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UPCOMING EVENTS

March Chapter Meeting

Thursday, March 7. Reid Hillview Terminal Building, as normal.

Chapter 62 Board Meeting

March 14 at 7:30 PM in the Terminal Building, all welcome.

March 23-24, SportAir Workshops in Watsonville. See sportair.org for more information.

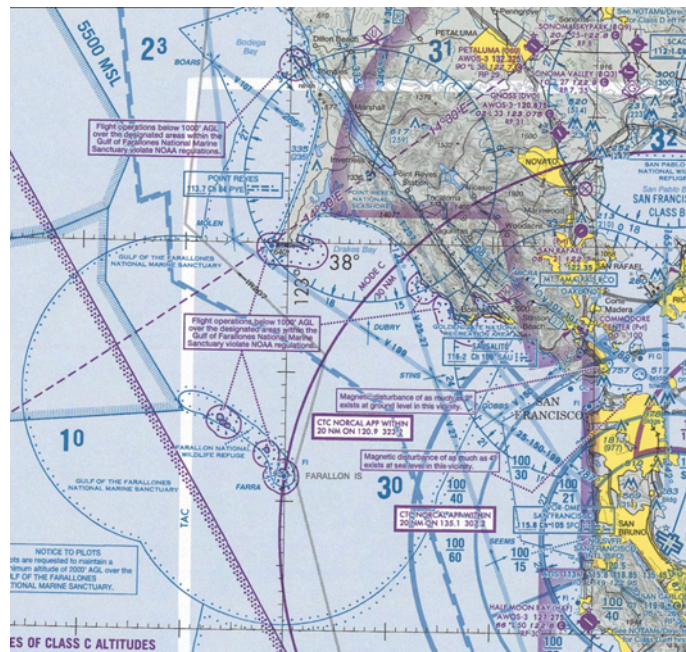
May 11, Fly-Out to visit Catto Propellers in Calaveras County.

Young Eagles, please see Don's notes for details.

March Event

Mai Maheigan, of the Gulf of the Farallones National Marine Sanctuary

Mai will be giving a talk titled, "Seabirds in our Sanctuaries". The waters off the California coast are rich with nutrients and diverse marine wildlife. Every year from February to August, hundreds of thousands of birds flock to our coast and islands to feed and breed. Mai Maheigan of the Seabird Protection Network will introduce you to the variety of seabirds and other marine wildlife, which are protected in our local national marine sanctuaries—Cordell Banks, Gulf of the Farallones, and Monterey Bay. Learn about the history and biology of signature seabird species, such as murre, puffins, guillemots, and cormorants. Find out about seabird colony conservation efforts, overflight regulations within the national marine sanctuaries and how you can help protect local breeding populations as you fly the coast.



EAA Chapter 62's March meeting will be in its usual place, the Terminal Building at Reid Hillview.

Thanks to Rusty and Joclyne Von Raesfeld for last month's special dinner.



6:30 PM General Meeting begins
7:30 PM Presentation starts

Editor's / VP's Notes

by Mark Wainwright

After having experienced some concern earlier that we would not have enough presenters for our monthly meetings, it appears that, in addition to Mai Maheigan this Thursday, we will have Guy Watson, who makes wooden propellers at the Wings of History Museum, and Michael Baum for Secureav later in the spring. Wolfgang has offered to give a presentation on aircraft ownership, and, if we can find a TV/monitor that's big enough, may give us a presentation on iPad avionics. A fellow who's the founder of a company called "Smartplane" has asked if he can speak to us about his work on new a new pilot-cockpit interface.

It has been a long time since we have had a fly-out, so I am tentatively scheduling a trip to see Catto Props, which is in the neighborhood of Calaveras County Airport. We will need to gauge the interest early, because there's some planning for how we can get from the airport to the shop, which is a number of miles away. We'll need to enlist the help of a local EAA Chapter.



Actually working on the Falco



Falco flyers in Frederickburg, Texas

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Lancair 320 developments, by Mike Francis

Editor's note: former and ought-to-be-current member Mike Francis shares with us the progress on his Lancair 320 project and the use of the special Corvair engine he was working on while here in California.

A winters tale.... Snow and -5 in Chicago, but the same true grit that lost us an empire (or two) persists. So I flung the garage doors open, and hung the engine by the prop, to test out some theory.

The 140 HP Corvair (with PSRU) fits like a glove inside the Lancair 320 cowling. A tiny blister was needed just behind the spinner for the starter motor. Custom bed mount includes mounting for the retractable nose gear. It took a while to mock up, I bird-mouthed and tack-welded the mount, then had a professional gas weld it.

The composite wings are three bays - inner (stub wing) contains the retractable mains. Middle bay is wet, so has to have a pass-through (sealed conduit) for aileron controls. Outer bay is also wet. The thought of trying to effectively seal up all that tankage and plumbing was particularly daunting, and believe me, you don't want to see my plumbers cleavage, so I'm going to build tip tanks, and keep just one bay (the outer one) wet. Mick Myall recently published a booklet on this topic:

<http://www.tiptankplans.com/>

The end result will look something like the SIAI Marchetti SF-260, which I know you are well familiar with:



SF-260

Mike's Lancair 320—note the cowling hanging from the engine hoist



Calaveras Air Faire 2013



Fly-In & Open House

Saturday April 20 8 am to 5 pm

Kathy Zancanella (209) 736-2501 kz@mlode.com

Mother Lode Experimental Aircraft Association www.eaa484.org



Formation flying team—dynamic show at 10:00am!

Free Admission



Tri-Tip BBQ by Mother Lode EAA
Breakfast by Harmony Ranch
Bratwurst by Moke Hill Lions Club

Aircraft & Classic Car Display
Mountain Flyers RC aircraft
Calaveras Community Band

Airplane rides--children \$5, adults \$10

Note to Pilots: Airfield will be closed 10:00 to 10:20 for the NorCal Crosswinds formation team demo.

Interesting Early American Aviation History

Source: Denham S. Scott, North American Aviation Retirees' Bulletin

Brought to us by: Don Von Raesfeld

How many of you know that in 1910, mighty Martin Marietta got its start in an abandoned California church? That's where Glenn L. Martin with his amazing mother Minta Martin and their mechanic Roy Beal constructed a fragile biplane that Glenn taught himself to fly. It has often been told how Douglas Aircraft started operations in 1920 in a barbershop's back room on L.A.'s Pico Boulevard. Interestingly, the barbershop is still operating.

The Lockheed Company built the first of their famous Vegas in 1927 inside a building currently used by Victory Cleaners at 1040 Sycamore in Hollywood.

In 1922, Claude Ryan, a 24-year-old military reserve pilot, was getting his hair cut in San Diego, when the barber mentioned that the 'town's aviator' was in jail for smuggling Chinese illegals up from Mexico. Claude found out that if he replaced the pilot 'sitting in the pokey,' that he would be able to lease the town's airfield for \$50 a month - BUT he also needed to agree to fly North and East—BUT not South!

Northrop's original location was an obscure Southern California hotel. It was available because the police had raided the hotel and found that its steady residents were money-minded gals entertaining transitory male hotel guests.

Glenn Martin built his first airplane in a vacant church, before he moved to a vacant apricot cannery in Santa Ana. He was a showman and he traveled the county fair-and-air meet circuit as an exhibitionist aviator. From his exhibition proceeds, Glenn was able to pay his factory workers and purchase the necessary wood, linen and wire.

His mother, Minta and two men ran the factory while Glenn risked his neck and gadded about the country. One of his workers was 22-year old Donald Douglas [who WAS the entire engineering department]. A Santa Monica youngster named Larry Bell [later founded Bell Aircraft which today is Bell Helicopter Textron] ran the shop.

Another part of Glenn Martin's business was a flying school with several planes based at Griffith Park, and a seaplane operation on the edge of Watts where his instructors taught a rich young man named Bill Boeing to fly.

Later, Boeing bought one of Glenn Martin's seaplanes and had it shipped back to his home in Seattle. At this same time, Bill Boeing hired away Glenn's personal mechanic. Later, after Boeing's seaplane crashed in Puget Sound, he placed an order to Martin for replacement parts. Still chafing from having his best mechanic 'swiped,' (a trick he later often used himself) Martin decided to take his sweet time and allowed Bill Boeing to 'stew' for a while. Bill Boeing wasn't known to be a patient man, so he began fabricating his own aircraft parts, an activity that morphed into constructing entire airplanes and eventually the Boeing Company we know today.

San Diego Historical Society



(cont' on page 6)

A former small shipyard nicknamed 'Red Barn' became Boeing Aircraft's first home. Soon, a couple of airplanes were being built inside, each of them having a remarkable resemblance to Glenn Martin's airplanes which, interestingly, had their own remarkable resemblance to Glenn Curtiss's airplanes.

A few years later, when the Great Depression intervened and Boeing couldn't sell enough airplanes to pay his bills, he diversified into custom-built speed-boats and furniture for his wealthy friends.

After WWI, a bunch of sharpies from Wall Street gained control of the Wright Brothers Co. in Dayton and



Douglas Cloudster

the Martin Company in L.A. and 'stuck them' together as the Wright-Martin Company. Wright-Martin began building an obsolete biplane design with a foreign Hispano-Suiza engine. Angered because he had been out maneuvered with a bad idea, Martin walked out taking Larry Bell and other key employees with him. From the deep wallet of a wealthy baseball mogul, Martin was able to establish a new factory. Then his good luck continued, when the future aviation legend Donald Douglas, was persuaded by Glenn to join his team. The Martin MB-1 quickly emerged from the team's efforts and became the Martin Bomber. Although too late to enter WWI, the Martin Bomber showed its superiority when Billy Mitchell used it to sink several captured German battleships and cruisers to prove it's worth. He was later court-

martialed for his effort.

In Cleveland, a young fellow called 'Dutch' Kindelberger joined Martin as an engineer. Later, as the leader of North American Aviation, Dutch became justifiably well-known.

Flashing back to 1920, Donald Douglas had saved \$60,000, returned to L.A. and rented a barbershop's rear room and loft space in a carpenter's shop nearby. There he constructed a classic passenger airplane called the Douglas Cloudster.

A couple of years later, Claude Ryan bought the Cloudster and used it to make daily flights between San Diego and Los Angeles. This gave Ryan the distinction of being the first owner/operator of Douglas transports.

Claude Ryan later custom built Charles Lindbergh's 'ride' to fame in the flying fuel tank christened: *The Spirit of St. Louis*.

Douglas noticed an abandoned, barn-like movie studio. He stopped his roadster and prowled around. That abandoned studio became Douglas Aircraft's first real factory.

With the \$120,000 contract in his hand, Donald Douglas could afford to hire one or two more engineers. My brother, Gordon Scott, had been schooled in the little known science of aviation at England's Fairey Aviation, so he hired Gordon. My first association with the early aviation pioneers occurred when I paid my brother a visit at his new work place. Gordon was outside on a ladder washing windows. He was the youngest engineer. Windows were dirty. And Douglas Aircraft Company had no money to pay janitors.

(cont' on page 7)

Gordon introduced me to a towhead guy called Jack Northrop, and another chap named Jerry Vultee. Jack Northrop had moved over from Lockheed Aircraft. And all of them worked together on the Douglas Aircraft's world cruiser designs.

While working in his home after work and on weekends, Jack designed a wonderfully advanced streamlined airplane. When Allan Loughead [Lockheed] found a wealthy investor willing to finance Northrop's new airplane, he linked up with Allan and together, they leased a Hollywood workshop where they constructed the Lockheed Vega. It turned out to be sensational with its clean lines and high performance. Soon Amelia Earhart and others flew the Vega and broke many of aviation's world records.

I had the distinct pleasure of spending time with Ed Heinemann who later designed the AD, A3D and A4D. He told me how my Dad would fly out to Palmdale with an experimental aircraft they were both working on. They would take it for a few hops and come up with some fixes. After having airframe changes fabricated in a nearby machine shop, they would hop it again to see if they had gotten the desired results. If it worked out, Mr. Heinemann would incorporate the changes on the aircraft's assembly line. No money swapped hands!

In May 1927, Lindbergh flew to Paris and triggered a bedlam where everyone was trying to fly everywhere. Before the first Lockheed Vega was built, William Randolph Hearst had already paid for it and had it entered in an air race from the California Coast to Honolulu.

In June 1927, my brother, Gordon, left Douglas Aircraft to become Jack Northrop's assistant at Lockheed. While there, he managed to get himself hired as the navigator on Hearst's Vega. The race was a disaster and ten lives were lost. The Vega and my brother vanished. A black cloud hung heavily over the little shop. However, Hubert Wilkins, later to become Sir Hubert Wilkins, took Vega #2 and made a successful polar flight from Alaska to Norway. A string of successful flights after that placed Lockheed in aviation's forefront.

I went to work for Lockheed as its 26th employee, shortly after the disaster and I worked on the Vega. It was made almost entirely of wood and I quickly became a half-assed carpenter.

At this time, General Motors had acquired North American consisting of Fokker Aircraft, Pitcairn Aviation (later Eastern Airlines) and Sperry Gyroscope and hired Dutch Kindelberger away from Douglas to run it. Dutch moved the entire operation to L.A. where Dutch and his engineers came up with the P-51 Mustang.

Interestingly, just a handful of young men played roles affecting the lives of all Americans as it initiated the SoCal metamorphosis, from a semi-desert with orange groves and celluloid, into a dynamic complex, supporting millions.

Although this technological explosion had startling humble beginnings, taking root as acorns in a barber shop's back room, a vacant church, and an abandoned cannery—but came to be mighty oaks.



Martin biplane

Membership Notes by Donald Von Raesfeld, Jr.

Membership Chairman
408-507-0951

Our last general meeting was held in the Reid Hillview terminal building on February 7. Instead of our usual hot dog dinner, Rusty Wells prepared a Chinese stir fry pineapple chicken dish along with spring rolls and rice. My wife Jocelyn also prepared a Filipino dish, chicken adobo, which I brought along. Randy Wilde helped serve the dinner. Everyone who had dinner seemed to enjoy it. Thank you Rusty, Randy, and Jocyline for all your work.

We had a very good turnout for February's meeting including several visitors. Our guest speaker was Don Campbell of Samson Motor Works based in Reno, Nevada.

Don made a presentation about their "Switchblade", a roadable aircraft that their company is currently developing. The Switchblade is intended for point-to-point transportation. It is a three wheel, fully-enclosed vehicle that you can drive from your garage to a local airport. Once you arrive at the airport you can manually extend the wings and then fly directly to your destination at up to 200 mph and 10,000 feet. You simply land, fold and stow the wings, and continue to your final destination. Their target market is commuters, business, and people who want something different. A mockup has been built by Kansas State University.



Don also brought along the company's quarter scale model prototype. Don told us that they had completed their flight testing with this quarter scale prototype and had achieved 90% of their test flight objectives for this prototype.

Their testing accomplished the following:

- Validated lift from wing and aileron control
- Validated ducted fan performance
- Validated effectiveness of rudder and vertical stabilizer
- Validated good stall characteristics

Their goal is to produce a viable, exciting, fun and useful

vehicle.

The Switchblade will be in the experimental/home built class. The owner is required to build 51% of the vehicle. Kits will be delivered with the major components built. They are planning to have three builder assist centers located in the United States.

To operate the switchblade on the ground you will need either an automobile license with a motorcycle endorsement. To operate this same vehicle in the air you will need a Private Pilot License. Don mentioned that the focus now is on



Company founder Sam Bousfield

(cont' on page 9)

the standard category and once the Switchblade is flying it may be followed by a Light Sport Aircraft a couple of years later.

Membership Notes, cont'

The Switchblade will feature the following:

- Extendable wings and tail
- Wings protected by clamshell doors
- Dual ground/air lighting systems
- Redundant ignition and fuel systems
- Continuously variable transmission
- Heating and air-conditioning
- Front and rear disc brakes
- Leather interior
- Drivers adjustable seat
- Optional airbags
- Front and rear crumple zones
- Side impact beams in doors
- Ballistic parachute recovery system



Jim Rainey and Randy Wilde

Top speed of the switchblade in the aircraft configuration should be 200 mph / 322 kph while the cruise speed should be 160 mph /

257kph. Wing loading will be 23 pounds per square foot, glide ratio should be 8 to 1, and the stall speed should be between 53 and 54 mph. The wings will fold manually and they will lock into place. Top driving speed would be 100+ mph / 161+ kph. The switchblade will seat two adults side-by-side. It will have a wingspan of 24 ft / 7.3 m as the length will be 19 feet / 5.8 m. The size of the Switchblade in the automobile configuration will be about the height and size of the Honda Accord. Maximum gross weight will be 1550 pounds / 703 kg while the vehicle will get 45 mpg /19km/l and the range should be around 400 miles / 644km. The Switchblade will carry 14 gallons of auto fuel. They are looking at engines in the 150 – 200 HP range. Supported engines at this time include the Lycoming O-320, Suzuki Hayabusa, and Samson Inline—4 by Coates International.

Cost of the Switchblade kit is estimated to be about \$60,000 less engine and avionics. The engine and avionics will add another \$25,000 to the total price. They are looking at the Dynon II and Garmin for the panel.

This was a very interesting presentation and it is certainly an ambitious project. They hope to have the prototype flying within a year.

You can find out more about the Switchblade on their website at: <http://www.samsonmotorworks.com/switchblade>. There is also an interview with switchblade designer, Sam Bousfield, that was filmed in the EAA Studios at AirVenture last summer and recently released as part of their Timeless Voices series. You can view this video at:

<http://www.eaavideo.org/video.aspx?v=1922300272001>

I would like to thank Don and his partner Larry who took time to make this presentation for our chapter.

MEMBERSHIP

Membership Notes, cont'

As of February 25, 2013 we have 29 paid members. If you were a member last year and have not yet renewed your membership your name will soon be dropped from the membership roster and you will be listed as a past member. If you are not a member of the chapter, you cannot access the "MEMBERS ONLY" section of the website. Membership can be renewed online or by sending a check for \$30.00 made out to EAA Chapter 62. Checks can be sent to me or brought to the General Meeting. Thank you to those who have already renewed and I hope the rest of you will do so soon.

I recently received an email from Mike Navarre. Mike had joined our chapter in November and became our Secretary. He notified me that due to his work schedule he will be unable to perform the duties of chapter Secretary at this time. If any of you would be interested in this position please let one of the chapter officers or myself know. Your help would be greatly appreciated.

YOUNG EAGLES

As of now we have 7 Young Eagle events planned for this year. They will begin in April and continue through October. Tentative dates and locations for these events are as follows:

1. April 6, Palo Alto
2. May 18, South County (WINGS OF HISTORY OPEN HOUSE)
3. June 29, Reid Hillview Airport Day
4. July 13, South County (this date coincides with the model airshow)
5. August 17, Reid Hillview
6. September 14, Palo Alto (this date may change)
7. October 19, Reid Hillview

Don Von Raesfeld, Jr.
Membership Chairman

New Tech Counselor

Andy Werback has received a letter from Jennifer Bork that he is confirmed as an EAA Technical Counselor. That seems appropriate as he won the Gold Lindy for his Lancair last year.



Don Von Raesfeld
Membership Chairman
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Santa Clara, CA 95050

Address Label is **RED**,
time to pay your dues.



MEMBERSHIP APPLICATION

Name _____ National EAA #. _____

Address _____ City _____ State _____
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Phone _____ Email: _____

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EAA Chapter 62 www.eaa62.org \$30.00 per year PayPal Available
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