

PENINSULA FLYER

South Bay

SoCal

May 2015

Editors Corner

Jim Lobue

I'm always looking for member written and submitted articles for **your** newsletter. Please email me with articles, suggestions, and/or comments. Thanks.

jimandmandy@yahoo.com



President's Forum

Merrill Eastcott

I am happy to announce that the board has approved an applicant to fill the summer EAA Air Academy slot that our chapter is sponsoring. His name is Adrian Marquez, and this will be his second trip to the Academy at Oshkosh. Ethan's interests include film and music, but his ultimate goal is to become an airline pilot. Ethan is a very deserving individual and we are proud to sponsor his attendance at the Academy this year. I look forward to his presentation to the chapter upon his return and know you will enjoy meeting him.

The board started planning for the chapter's annual holiday brunch as it is necessary to make reservations now to secure a decent venue. Although the Alpine Village has been a reasonable compromise between price, accommodations and menu, the board feels we should possibly move to a new location this year. We are scouting a couple of places we are familiar with, but we encourage suggestions from you, the membership. Please let one of the board members know of your thoughts.

One of the main topics at the last board meeting was the subject of shirts and hats, and a new emblem for the chapter. We do have a supplier located and are working on a new chapter emblem for both shirts and hats. Hopefully one of the board members working hard on this project will have more information at the general meeting this Saturday.

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Upcoming events, Chapter Chatter

Technical Article by Bob Archer

For my last subject this time, I would like to ask who of us hasn't had a secret dream of someday being able to fly a jet if even for just one ride? For me, I have been searching for a way to get back into a jet. That is why I really got excited when I started reading about the SubSonex project. Recently, KitPlanes editor Paul Dye became the second person, and the first non company pilot to fly the SubSonex. Check out this web site of his experience if you haven't seen it yet:

<http://www.avweb.com/videos/Video-Kitplanes-Flies-the-SubSonex-Jet-224059-1.html>

Finally along these lines, I heard a rumor that Dennis Lord, our vice president, got an L-39 ride recently. Hopefully if his grin is bearable by now, he will relate to us his experience at the membership meeting. Hope to see you this Saturday at what will surely be a great meeting!

Financial Report

Richard Schleicher

| | | |
|---------------------------------------------|------------|-------------|
| Beginning bank balance: | \$11899.39 | |
| Income/deposits | \$ 5026.30 | Income from |
| Pay Pal of \$339 is included for the month. | | |
| Expenditures | \$ 3858.63 | |
| Ending balance | \$13067.06 | |

Break down of expense for the month:

| | |
|-------------|-----------|
| Hanger rent | \$3493.46 |
| April BBQ | \$ 83.98 |
| Edison | \$ 111.27 |
| Water | \$ 103.96 |
| Mar BBQ | \$ 65.96 |

Our Hanger/tie down rental invoices for May total \$3300. John Lundburg moved his Long EZ project out and we have no new tenants as of May 01.

For April, we had a positive cash flow for the month due to the collection of an outstanding tenants settlement for the full amount owed. The current outstanding collections is \$8934.00 With the pending sale of the BD4 assets, we hope to recover 50% of this in addition to collection efforts for balance due accounts.

For any detailed reports or specific inquiries of any income/expenditures for the association, please send your inquiries to ops@actsworld.com

As reported by:
Rich Schleicher EAA Treasurer

Current bank balance as of May 01, 2015: \$13396.90

Hangar Report

Keith Spreuer

There are a couple changes this month. Our long time tenant John Lundberg moved his Long EZ to another hangar on the field. I hope it is so that he can have restoration work done. It has been dormant while at our hangar. The other change is that we have sent an eviction notice to Paul Hienderich. His project will be placed at auction soon since he did not make arrangement by the effective date of May 9th 2015. The non-paying spots in the hangar now are the Space 4, space 6, space 7, space 9 (half filled with BD4), space 11 (tool space) and half of space 13. The total billable for the hangar is \$3220. Probably the most urgent work to do is to update our leases and to get all tenants to sign the updated forms. Dennis and I are working to make the leases conform with California code and EAA insurance requirements.

Upcoming Events

Expo Kickoff Meeting
Saturday, 16 May, 08:30

Chapter General Meeting and BBQ
Saturday, 16 May, 10:00
Open to everyone.

Young Eagles
CPM Admin/Terminal Building
Saturday, 30 May, Noon

Chapter Board of Directors Meeting
Saturday, 6 June, 09:00
All members welcome.

EAA Chapter #96 Meetings are at CPM.
1017 Alondra Blvd
Compton, CA 90220

Chapter Chatter



Dennis Lord is our current Chapter 96 VP, executive producer of the EAA 96 Fly-In and Model Expo, and a member of the LA County Aviation Commission overseeing five County airports including Compton.

It takes a village.... We've all heard that. Recently, I was asked by Jim Gates, EAA 96 member and a leader at TOA, to manage and gather media attention to the recent Collings Foundation arrival of their B-17G, B-24, and the P-51. Behind Jim was a much needed volunteer force. I have a great love and respect for volunteers because we need them for our Expo; about 70 to be precise. Some of those volunteers were EAA 96 members. It's good to see Chapter presence at such events. Thank you to those that participated!

The Open House at CPM came and went. Keith and Rich displayed their aircraft and Glenn Parkison was supported by pilots George Butts, Rhon Williams, and Gary Franklin with Jim Stothers handling the desk in flying Young Eagles. Thank you fellows! I spoke to some of the parents and they were pleased with your work.

I've been away and missed the Board meeting so I am catching up. The only thing I know is that there is always more to do and seemingly no lack of finding those items. It is now time to kick start the Expo for 2015. The date is set; Saturday, September 26, 2015. Gates open at 0900, close at 1500.

While we continue to improve our financial position by making good business decisions, the Expo is still our primary fundraiser. Failure to support this event in some way results in a lack of support to keep our doors open. The Chapter needs you. We cannot take this event for granted and finding those externally that can financially support us is more than a one-man job. I am all ears for contacts names that we can approach for Expo support. Your employer, a friend who loves aviation, there are many untapped resources. This is our fifth year doing this so we must be doing something right. Let's keep the momentum going!

The Kick off meeting is on Saturday, May 16, in the Board Room at 0830. Until I hear differently, I am assuming that all volunteer managers are returning. For the rest of the membership, we need help in the Food Court and with general volunteers. There is indoor work helping kids assemble and fly gliders. Let us know what you can do.

Beyond the usual, there will be the unusual at the Expo. We are growing an interest in drones. Who better than us to teach young people how to do it right? Then, to address those that love turbines, we are close to closing a deal for an appearance of the Gulfstream 650 shown below. Wouldn't this be special!



As always, your feedback is welcome

Dennis is easily reached at VP@EAA96.org or at 310.612.2751 and he looks forward to hearing from members. Comments and materials received may be used for future columns or responded to privately upon request.

Editor's note:

Bob Archer passed away January of this year at the age of 83. Please see the March newsletter for the obituary. The article below was submitted by him a while back.

TENNA TIP #5

Bob Archer

Electrical Noise & RF Interference in Aircraft

Over the years I have been getting more and more reports of people having problems with RF interference and aircraft electrical noise. RF interference manifests itself in strange happenings when the transmitter is keyed such as auto pilots flipping the airplane on its back, or trying to, instrument needles going to full scale or zero, blanking out LCD displays, and even turning ELTs on and in extreme cases blowing out the final amplifiers in the transmitter. Such goings on can be disconcerting to say the least. These types of problems are becoming more common with the advent all of these low voltage instrumentation devices that use liquid crystal and LED displays. Most of these problems are caused by antennas with high VSWR (Voltage Standing Wave Ratio) which many people have installed in their airplanes in the past. VSWR is an indicator of the amount of impedance mismatch at the antenna. When there is a mismatch the VSWR controls the amount of energy reflected back down the cable both on the inside and outside of the outer conductor of the coaxial cable. If the antenna has a good RF choke built into the antenna all the reflected energy would be not be forced to back down the inside of the cable otherwise some of it, maybe most of it, would be reflected and return down the outside of the cable to the transmitter area and radiating energy all the way. This radiated energy would be transmitted into every bit of metal within sight as well as combining with the energy radiated from the antenna causing ripples and peaks and nulls in the radiation pattern. It also gets into electronic equipment as mentioned above and can cause the electronic gremlins. The energy reflected back down the inside of the coax cable is another story. Most modern transmitters have safety devices built in but it is possible that if the power level of the reflected energy is high enough the transmitter could be damaged or destroyed. It depends on both the amplitude and the phase and if the phase of the peak voltages coincide the voltage could theoretically double and if at the final amplifiers they could blow. I had one customer that this happened to and it didn't blow all of the final amps just most of them, enough that he had trouble communicating. The higher the transmitter power the more these kinds of troubles occur. I had another customer that had a problem with his engine instruments wiping out on transmit. He had a high power and a low power transmitter so he connected his low power one to his bad vertical stab antenna and his high power one to one of my SA-006 Com antennas mounted in his fuselage and he has been smiling ever since. He now uses the low power for ground control and such and the high power for airborne communications. He also had an autopilot problem that was solved prior to the antenna fix by the autopilot manufacturer recommending a diode be installed in the autopilot, I'm not sure where but probably across the power input.

I would highly recommend testing all installed antennas for VSWR prior to sealing up any areas that will not be accessible after closing. Most Ham radio operators have VSWR meters that would do the job and would be willing to help. I would recommend testing at least three frequencies and four or five would be better to make sure there are no bad frequency spots. The copper strip type antennas tend to be pretty narrow banded and if well centered in the frequency band the high and low frequency VSWR will probably be 4 or 5 to 1. I have tested several of these copper strip antennas though that have tested very well and I don't know why. Maybe they were lossy, such as the ferrite transformer style. Also long cables tend to mask high VSWRs.

I have heard about another problem lately not pertaining to RF interference but still a possible problem. From two sources I have heard about, of apparently not being able to receive or transmit through the glass skin of the aircraft. In one of these cases the story was that a primer / surfacer of some type that was imported from Germany was used. In both cases the aircraft were Glassairs and I don't know if it is the construction materials or coatings or some other reason but it would be a good idea to check out the transmissibility of the skin. This would be easy to do using a hand held GPS receiver set on signal strength outside the aircraft and then moving it inside and checking the difference. The GPS signals are much higher in frequency so if the GPS signals get through the VHF frequencies would have no problem. In my experience in testing materials and coatings I have found that if the coatings were not conductive they did not have much effect. I have not of course tested every type of material, so test. Again, I highly recommend that ALL antenna installations be tested after installation and before sealing up if at all possible. I have recently also tested one of my antennas installed inside a large rudder which tested pretty bad. When tested outside the rudder it tested fine. It seems this vender used some kind of Zinc Chromate primer that was VERY heavily doped with the Zinc Chromate and apparently it was detuning the antenna. Not recommended! Very lossy too!

With all glass, or I should say non-conductive, aircraft an additional problem is the total lack of the shielding provided by the metal, or graphite structure. The conductive aircraft provides at least some shielding from the radiation from the monopole on a ground plane type antenna. Again that radiation can and does get into every conductor in the aircraft.

I have tested all of my antenna models on actual aircraft installations and if installed as per the installation instructions have an installed VSWR of less than 2:1 which is very good. I have also checked some installations that had a high VSWR and most of these turned out not to have been installed properly.

Aircraft noise can also be a problem. Sources can be alternators, generators, fuel pumps, magnetos, strobe systems etc. All of these devices can be the source of noise that can be transferred into the radios. This noise gets onto the main bus and thence into everything. All the modern electronics equipment are controlled and operated by digital signals which are short duration square waves which can also leak out of the equipment and into everything. LCD displays can be very sensitive to these signals.

I have been recommending that folks with these kinds of problems do a noise testing program by testing for noise sources with and without the engine running and with and without all the various pieces of equipment running. This should turn up something. To kill some of these noises I have been recommending installing capacitors of about .25mfd to the bus and various places for the lower frequency noise and for the RF problem use capacitors of about 50 pfd. Old fashioned automobile ignition capacitors are in the ball park for the .25 caps.

I hope some of these ideas might help. Good Luck!

Get
local

EAA Chapter 96

City: Compton, CA

Airport: Compton
Airport (CPM)

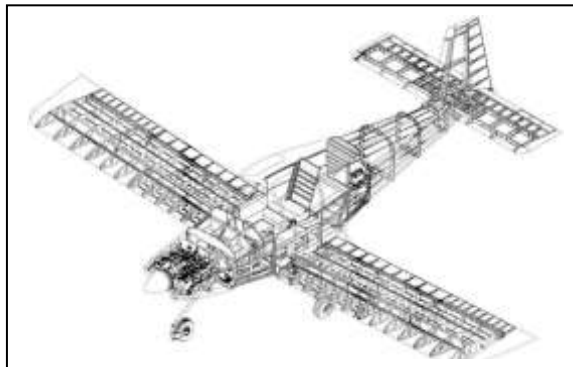


Monthly Meeting:

Third Saturday of the
month at 10 a.m.
Compton Airport
Chapter 96 Hangar
1017 West Alondra Blvd.
Compton, CA 90220



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NEWSLETTER IDEAS OR ARTICLES?

Send your newsletter ideas or articles to iimandmandy@yahoo.com

EAA Chapter #96

1017 Alondra Blvd
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