

The Cleco

Experimental Aircraft Association Chapter 393

Speaker October 24

This month's speaker will be our own **Ken McKenzie** who will talk to us about **the use of automobile engine conversion powerplants** in today's modern Experimentals. He will explore why we are seeing growing numbers of builders choosing alternate engines over the more traditional Lycoming & Continental powerplants.

Also note that this meeting will have **elections of officers** for the coming two-year term. You may nominate candidates at the meeting (please be sure that they will serve before you nominate them).

Upcoming Topics

Dates and topics may will change!

Nov 28: TBD

NOTE: Our V.P. is working on a spring time presentation by John LaNue on building the Vickers Vimy.

Dec 8: Holiday Party, MDPA, 6 PM

Photo Gallery on the Web

See pictures from the EAA 393 expedition to SFO for exhibition and Blue Angels viewing, hosted by United Maintenance. (And organized by Ron Robinson, thanks Ron!)

This is now operational in DRAFT mode. Send your pictures to Harvard with a file name and description that describes the picture. Let Harvard know if you like/use this feature.

Holiday Party - Sign Up!

Presidential perspective:

Elections are here

This month we will hold our biennial election of officers. So far we have managed to come up with the minimum required number of candidates. The candidates are as follows:

President - Ken McKenzie
Vice President - Bill Reining
Treasurer - Louis Goodell
Secretary - Pete Mitchell
Newsletter Editor - Harvard Holmes

You will be able (and encouraged) to nominate additional candidates before the voting begins. Otherwise, according to the bylaws, a simple majority of at least 2/3 of the average attendance of the last 3 meetings will decide it.

On another topic, the chapter has spent \$207 to acquire a dozen safety vests for use during Young Eagle and other events. As the cost was below the \$250 necessary for membership approval the board gave the go ahead. We will need another dozen vests if the B-17 comes to Concord next year. However, we won't know for sure if we are on next year's tour stop for a few months yet.

I'm speaking! As you have just read I will be this month's speaker. Scott asked me to come up with a presentation on this subject because of a long held interest in most every type of engine and, in general, all things mechanical.

When I first began my flight training in the early '90's, I was confronted with the reality that airplane engines were much more complicated to operate than any auto engine I had encountered.

Ever since the mid '80's, every vehicle I've owned has had electronic ignition and electronic fuel injection and hasn't given a bit of trouble or ever failed to start. I'm talking hundreds of thousands of trouble free miles over 20 years with little more than regular oil & filter changes. As long as you changed the oil every 6 months or so, (does anyone ever add oil between changes any more?) driving was as simple as getting in and turning the key.

However my introduction to the modern airplane engine included things like a primer, carb heat, leaning knob, EGT gauge, mag check & drop, adding oil regularly and vibration only a Harley rider would feel at home with. This was not something that I was looking forward to in my modern airplane.

In the early '90's just as computers were getting comfortable with the Internet there came into being news groups devoted to alternate airplane engines. This ability to share information and ideas caused an explosion in the number of people that were considering auto based powerplants for their projects. The problems inherent in this choice were many and as new problems came up, new solutions were discussed, tried and added to the growing body of knowledge available to the participants. The biggest difference between these groups and the average car club of the '40's or '50's was that this club was worldwide, and instead of a dozen or so members, there were literally thousands of individuals all pushing the envelope and interacting in real time on a daily basis. The result was that most all problems have been overcome in a relatively short period. In the process, these groups have moved on from the old news groups to the more modern e-mail groups hosted by Yahoo or Google or any number of smaller ISP's.

As a result of these collaborations, the modern experimenter can choose from many options. Most begin with auto engines, which are available either new in crates or used in wrecking yards, for a fraction of the cost of traditional aviation

engines. Along with the positives of low cost, increased reliability and easy availability, came the problems of adapting engines that spent most of their lives at low power. These problems were relatively new to modern airplanes. Things such as radiators that had to work at 200 mph, alternators that had to spend their lives at 5000 rpm and electrical systems that could not fail. Add to this, transmissions (known as propeller speed reduction units, or PSRU's) that had to cope with the resonances that propellers and engines produce. and the hurdles can be significant.

However, now we have overcome most all the teething problems and we now have many auto engines flying with over 500 trouble free hours and several over 1000 hours. Given how few hours the modern experimental racks up over a given year, these numbers represent many, many years of trouble free operation.

So, if you want to hear about this subject in much greater detail, come to the meeting and I'll be glad to share what I've learned over the last 15+ years of watching this area develop.

Fly Outs Revitalized by Scott Achelis

Fly-outs are usually scheduled on the Saturday following our regular monthly meeting. If the weather's not conducive for flying, the event is often postponed to the following Saturday. Watch for information regarding the Fly-outs that is sent via email from EAA.393.Flyouts@Gmail.com; and be sure to contact that web address and give us your email if you haven't been receiving Fly-out information.

This month's Fly-out is scheduled for Saturday October 27th. We plan to go to Little River (O48) – Mendocino airport. Plan on arriving at the airport at noon. Food will be delivered about 12:30 by former 393 member Chris Kenyon, who will meet us at the airport and deliver pre-ordered food from "JD's Flying Pig" restaurant in Fort Bragg.

Entrée is your choice of a Brisket or Tri-Tip sandwich or ½ chicken.

Meals include a side order consisting of:

- BBQ Beans or
- Potato Salad or
- "Poor Man's Caviar" (black-eye peas, sweet peppers, green onions and dressing)

A variety of soft drinks and bottled water will also be included.

All meals cost \$12.00 for regular sandwich & \$14.00 for the chicken or a large sandwich.

There are no food facilities available at the airport so to insure that you get something to eat attendees should pre-order food by contacting Fly-Out coordinator Scott Achelis (EAA.393.Flyouts@Gmail.com or 925 935-7920) and letting him know your menu selections in advance.

November's Fly-out is scheduled for December 1st. Bill McCoy is planning on an enhanced visit to Salinas Airport (SNS) following lunch at The Landing Zone Restaurant.

Be sure to watch for airport information, departure times etc. that will be emailed several days prior to the Fly-out; as well as a last minute update that will be sent the day of departure.

Young Eagle Events by Dick Sperling

WOW. Another Young Eagles Report !

What luck! Saturday's weather was fantastic and the Ch. 393 Young Eagles Rally was a big success with 40 potential future aviators getting rides in a "Real Airplane". We have surpassed our 2007 Chapter 393 goal of flying 100 Young Eagles, the current total to date is 121 Young Eagles. Five of the new Young Eagles are Boy Scouts and five are Cub Scout Webelos.

Our volunteers all stand out for their dedication to the future of this wonderful flying experience!

Specifically, those helping were the pilots Harvard Holmes, Pat Peters, Tony Tiritilli, Bob Belshe, Scott Achelis and a guest from the Napa EAA Chapter, Bill Wheaton. Ground helpers who worked out all the little snags of the day were Bruno Motta, Pete Mitchell, Doug Borchert, Rich Bourgeois, Guy Jones, superlady Shari Moore and my own, Marilyn Sperling! Thanks again for making Saturday a very successful day. Our last Rally for 2007 will be on Saturday, November 3rd for a group of 20-25 Sea Scouts from Brentwood. They have all had some aviation ground training that should make planning this event easier. Please mark your calendar for the final Young Eagle Rally of 2007!

Remember Sea Scouts Y.E.Rally; Saturday, NOV 3rd : Rain date, Nov.10.

ONWARD & UPWARD !

Rich Sperling
EAA Ch 393
Young Eagles Coordinator

2008 Calendars

I have ordered 24 EAA 2008 calendars for sale for the chapter. The price is \$10.00 each which is \$2.99 off the cover price. I should have them for the October meeting. It looks like another great calendar. At the end of the year I file mine in my income tax folder because of all the notes of the year on it.

Thanks, Ray Nilson

EAA 393 General Meeting

August 22, 2007

President Ken McKenzie opened the meeting with a welcome for members and guests.

Announcements:

Scott Achelis: Our August 25 Fly Out is to Mariposa Yosemite.

Dick Sperling: Our Young Eagle event is rescheduled for October 13, and pilots are invited to fly Young Eagles at Lincoln on October 6. There is a 30 gallon fuel donation for Young Eagles pilots at Lincoln. At Concord, we've flown 89 Young Eagles this year – our goal was 100 and we'll reach that on October 13.

Ken McKenzie: Our Nominating Committee is having difficulty finding willing candidates. The current officers are willing to run again, except V. P. Scot Stambaugh. Bill Reining has agreed to run for V. P. Also, the Secretary/Treasurer position will be split, with Pete Mitchell willing to run for Secretary and Louis Goodell willing to run again for Treasurer.

Presentation:

Scot Stambaugh gave us an overview on wiring your aircraft. He brought tools, fittings, connectors and examples of wiring for everyone to view.

His instrument panel has a shelf behind it for mounting electronics and devices.

One decision is where to route your wires. The wires should be out of the way, yet with the lengths short, and with good access. The layout is somewhat critical for a good job.

Connectors should be put in place at the wing junctions and at the tail junctions, if the tail is removable.

You should make a wire loom outside your aircraft. After you have decided on the routing for your wires, you should measure the length of all the paths and measure for each path on the wiring loom. At the ends of each path, put a nail so the wire can bend

around the nail. Then as you assemble the wires on the loom, you can put in bends at the nails, and hold the wires together with zip ties.

When you install the wiring, you will use Adel clamps to hold the wires in place. Rubber grommets are used where the wires pass through holes, or anywhere there is the possibility of chafing. Where the wires terminate, be sure to anchor the wires to prevent vibration. If the wires terminate in a D-shell connector, be sure to use the back shell – the back shell provides the support that will prevent vibration from breaking the wire at the connection. D-shell connectors will take up to 18 AWG wire if the ones with the solder cups are used.

You will need to use wire large enough for the load. See AC 43-13 for current carrying capacity of wires. Scot used 20 AWG wire as the smallest wire.

For firewall penetrations, you need to use a fire safe bulkhead connector. Be sure the connector has a steel housing, not aluminum. "Cannon plugs" are one option – Digikey or Mauser have them. For firewall penetration, you can also use fire resistant grommets with steel supports around it.

For battery cables, get them from Summit Racing.

Don't forget to label your wires. You can put your labels under clear shrink wrap.

He uses PVC for conduits.

Use the right tools (crimpers and strippers), and the right wire (Tefzel, not Teflon). For heat shrink, use the yellow plain stuff and the black stuff with adhesive lining to make air-tight connections. You can get these supplies from AeroElectric Connection.

On the debate between fuses and circuit breakers, Scot is on the side of fuses.

We had a break to look at all the neat stuff and finished for the evening.

EAA 393 Board Meeting

October 2, 2007

Attending: Ken McKenzie, Scot Stambaugh, Louis Goodell, Harvard Holmes, Guy Jones, Pete Mitchell, Dick Sperling, Bill McCoy, Bill Reining.

1. The procurement of shirts/vests for Young Eagles volunteers was discussed. In the past, Pat Peters got a bulk purchase of personalized shirts. Now, it is not clear that we have enough shirts needed to meet the minimum order. Ken pointed out that the chapter will be getting vests to use for a planned B-17 event. These are available for Young Eagle events as well. The discussion wandered off into shirts of other colors for more general consumption by the members. Your note taker is unable to provide a conclusion to this discussion.
2. For Bill Reining's benefit, there was a review of ideas and contacts for speakers. Specifically, Scot Stambaugh is still working on John LaNue; Dick Sperling has some contacts; Harvard Holmes has a daughter in the FAA; the EAA is developing a Speakers Bureau; we might invite Steinbrook from the Avionics shop (notes are vague on this); and an occasional meeting with full introductions without a speaker was recommended. We could also invite other Chapters to attend the presentations of particularly outstanding speakers; the Water District Auditorium nearby would likely be available with some advance notice.
3. The Treasurer (Louis Goodell) reported \$2682.20 in checking and \$2645.01 in our saving account.
4. The Holiday Party is coming and the Cleco needs to include an invitation form.
5. Dick Sperling recently went to a Hayward party subsidized by Bud Fields. It would be nice if some of our meetings could

have some informal dinner before the meeting. Bill Reining suggested a hamburger fry amongst the hangars to get the members out.

6. Dick Sperling reported on preparations for the next Young Eagles event on October 13. It will run from 9 AM to 1 PM.
7. Bill McCoy has been distracted by family health issues, but would like to have a recruitment BBQ. He also reported on putting up EAA 393 material in the Chamber of Commerce offices. With Charles Hester, he is considering some sort of afternoon mixer to get the Chamber members out. This would not be until the Spring.
8. There was discussion about hosting an organizational meeting of Golden West on September 22. [Postponed until October 20.]

Fly Out to SFO !

October 7, 2007

As noted in earlier Clecos, Ron Robinson responded to an invitation to show experimental aircraft at the United Maintenance facility at SFO, at their employees and family open house. They are also hosting the Blue Angels at that site for Fleet Week. Ron organized a collection of 10 aircraft, 8 from CCR, including Ron's Glasair I RG, Bob Belshe's Lancair 235, Phil Jenkins' Glasair IIS RG, Ken Wiley's Glastar (aborted in HWD due to a flat tire), Scot Achelis' RV 6A, Bruce Seguire's Swift, Fred Egli's Lancair IV, and Skip Scot's T-34.

We formed up in HWD and the tower there gave us squawk codes and released us at 3 minute intervals. Over the San Mateo bridge toll booth, HWD instructed us to call SFO and we were cleared straight in to 28R and cleared to land. We landed long on that 12,000' runway and taxied to the end where a "Follow Me" truck took us to the United facility. United had the Blue Angels for viewing, our airplanes, 100+ classic cars, a B-747-400 for tours (lots of glass in that

cockpit), a B-737 for an airplane pull contest, food vendors, music, and a kids play area. At the end, the "Follow Me" truck took us back to the taxiway, we taxied down to 28R at Echo intersection, departed on 6,000' of runway and followed Highway 101 over San Francisco and then back to CCR.



Bob Belshe ready to depart HWD.



Bob on short final, landing past the crossing runways.



Advertisement

CCR hangar space (west side) available for a project/small a/c \$210/mo.

Pete Wiebens, day 510-632-7676x1174, eve 925-933-7517



EAA 393 ANNUAL HOLIDAY PARTY

Saturday, December 8, 2007

Join the festivities at the MDPA Clubhouse, 200 Sally Ride Drive, Concord, CA

Hors d'oeuvres (Passed 6-7 PM)

Spinach Phyllo Cups
Teriyaki Meatballs

Buffet Dinner (Served at 7 PM)

Mixed Green Salad with Italian Dressing
Warm Garlic Bread
Brisket of Beef
Chicken Cacciatore with Grilled Polenta
Vegetarian Lasagna
Mashed Potatoes
Pasta Salad
Roasted Vegetables
Decaf Coffee & Hot Tea Station, Biscotti
Wine and sodas

World Renowned Dessert

All this for \$30 per person!!
(or \$35 if you have not paid your dues this year)

Please send us your money by November 29, 2007 or bring this to the meeting Nov 28th.
You may fold and tape this sheet with your check inside.

Name _____ [☐ Beef [☐ Chicken [☐ Vegetarian Lasagna

Guest _____ [☐ Beef [☐ Chicken [☐ Vegetarian Lasagna

Members & guests: \$30 each; Members who haven't paid their dues & guests: \$35 each.

Amount enclosed: _____

Make your checks payable to **EAA Chapter 393**. Send the form and your check to:

EAA Chapter 393
P.O. Box 272725
Concord, CA 94527-2725

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EAA 393 Fly Out to Mariposa-Yosemite

September 29, 2007

We ate at the Airport Bar & Grill, located about a mile from the airport. Pilots were Fred Egli with Harvard Holmes, Eric Egli and Bob Wantland in his Lancair IV; Scott Achelis in his RV-6A; Ron Robinson with a friend from LA in his Glasair I; Bob Belshe with Tom Howard in his Lancair 235/320; and Ken Wiley with Akiko in his Glastar.



Ken Wiley's Glastar



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Meeting Schedule (2007/2008)

General (Wed.)	Fly Out (Sat.)	Board (Tue.)
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Oct 24, Elections	Oct 27	Nov 6
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Nov 3, Young Eagles – Rain date Nov 10		
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Nov 28	Dec 1	Dec 4
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Dec 8, Holiday Party, MDPA	Dec 29	Jan 8
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Jan 23, 2008	Jan 26	Feb 5
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Feb 27	Mar 1	Mar 4
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Mar 26	Mar 29	Apr 1
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Apr 23	Apr 26	May 6
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May 28	May 31	Jun 2
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Jun 6-8, Golden West EAA Fly In & Airshow		
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Jun 25	Jun 28	Jul 1
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Jul 9-13, Arlington Fly In		
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Jul 19, Picnic	Jul 26	Aug 5
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Our meetings are open to the public. Everyone should consider themselves invited. EAAers might make someone else happy by introducing them to our Chapter, getting them involved in projects, fly outs and just plain good camaraderie.

Our normal meeting time is 7:30PM on the 4th

Wednesday of the month (except July, November and December) at the old terminal building on John Glenn Drive just south of the tower.

Chapter 393 Fly-Outs are open to chapter members and their guests. Email EAA.393.flyouts@gmail.com (preferred) or meet at the Buchanan Field terminal building at 10am, and we'll try to match people and airplane seats to take as many as possible. If the weather is bad, the fly out will be postponed to the next Saturday, possibly with a change in destination.

EAA Chapter 393

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