

# The Cleco



Experimental Aircraft Association • Chapter 393 • Concord, CA

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

MAY 1992

## YOUR 1992 INDENTURED SERVANTS

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## CHAPTER MEETING

May 27, 1992 The 4th Wednesday of every month @ 7:30pm; Old Buchanan Terminal Building, Concord Airport. *Wear your 8\$&€@Φ% Badges please!*

## PROGRAM

This meeting will feature Ross Bissinger, a helicopter pilot (flew in the Gulf War) and aeronautical engineer. Regarding his topic, my information was sorely lacking--lousy cub reporters these days just can't be depended upon. However, it is my understanding that he will be talking about helicopter aerodynamics. Please accept my apology Ross if I am incorrect. The speaker will be "up front" this time--that is, he will begin at 7:45 and introductions will be after the break.

## MINUTES OF GENERAL MEETING 4/22/92

The meeting was called to order by President Glenn Werner. The minutes of the March meeting as published in the April Cleco were approved. (There was a motion approving them, wasn't there?) We had no treasurer's report because Callie was unable to be at the meeting due to another commitment. (What, is there something more important than the EAA meeting? However, she should be pardoned for this abominable abrogation of her responsibilities since it is the first meeting she has missed in two years, so she tells me.)--Back to the minutes--There were some other important announcements that Glenn made but I didn't write them down and can't remember them.

He then turned the meeting over to our guest speaker Brian Seeley. I must say, Brian's presentation was nothing short of sensational. His talk revolved around modifications he has made to his Mooney and focused on engine cooling. I was really astonished at the aerodynamic engineering that goes into air inlet and distribution design. By the end of the session, I had the feeling that I had just listened to an engineer from NASA with a skill to put difficult concepts into plain English. The next day I spent some time looking at my Lancair in light of his comments. I am sure I represent the entire membership when I thank Brian for an outstanding presentation. Also, great work by Jim Lewis in his selection of a speaker.

After Brian's presentation, we had our round of introductions. Ed Lester has his Lycoming down for annual. He is still having problems with starter pinion gear destruction and is looking for a solution. Clever ole Stub Pillote--he got his wife up in his Glasair by promising her a trip to Hawaii. But the jokes on her--she thinks they'll be flying United. Stub didn't tell her that he's thinking of using his luggage area for extra fuel and seeing if he can't make it in the Glasair. What the heck, you only need bathing suits and shorts over there. (Just joking--I wouldn't want to be the reason for a divorce.) Dwaine Duis is restoring a second Luscombe. He told me that with two of them each going 100 mph (that gives 200), he would be able to keep up with us high performance guys. Does it really work that way, Dwaine? Hooray for Harry Heckman; his Lancair is right-side up to stay. Dennis Coulomb went to Sun-and-Fun and had a terrific time. Said it was quite a thrill seeing the GeeBee. Another hooray for Chris Kenyon. He moved his RV6 to the aluminum recycling cen...oh, oh...pardon the slip...to the airport. One small step for aviation history, one giant step for Chris. Lyle Knight has a plug to make the canopy for his KR2. Hey Lyle, we make our canopies so they don't leak and we don't need plugs. Jim Lewis has his Mustang back in the air--says it feels great. Pete and I met up with him over the mothball fleet and did some formation flying. Your Mustang looks beautiful, Jim.

## MINUTES OF BOARD MEETING 5/13/92

The meeting was called to order by President Glenn Werner. The first item on the agenda concerned our letter to CRAMP (made available to members at the last chapter meeting). Their response in the form of a letter to Callie will be available at the next meeting. In a nutshell, it is the opinion of your Board that the ball was dropped on both sides regarding action on issues important to us at Buchanan Field. As you will see, the CRAMP president

has offered to refund our \$1,000 dollar donation if it appears that CRAMP activities are not the best place in which to invest our funds. Callie will attend the next CRAMP board meeting then fill us in on her overall impression.

The date has been set for the annual picnic: July 18th. This appears to offer the minimum conflict with other activities. Callie will be in charge of the arrangements.

Callie again--she was hereby put in charge of the Christmas dinner. Hey guys, we plan ahead.

Regarding the proposed candidates night, progress is happening slowly. Interest of other Buchanan organizations in assisting putting it together has been minimal. However, it appears that other groups are interested in attending thus the turnout should be good. Callie (again Callie) will prepare a letter for sending the candidates.

Our Chapter has been offered a Croy paint sprayer (the low pressure unit) for a price of \$500. It seems like

this would be something worthwhile for the Chapter to have for loaning to members. Jim Lewis will check into where the unit stands regarding meeting the next round of EPA standards; he will also look into alternatives. This brought up a broader issue: whether or not we should begin to build an inventory of tools for use by members. The point was made that we consider ours one of the "buildingest" chapters in the area. If so, why don't we have a tool lone program? A lot of other chapters do.

Regarding raffle prizes, things have slipped lately. We simply blew it last meeting. The meeting before we had no prize. John Diegoli won it and we have something for him--come on John, show up at the next meeting. We intend to see you happily carting off your prize whether you like it or not. In general, for the raffle to work the way it was intended, the winner(s) bring the prize for the next raffle. John, that means *you* for Wednesday, John--we will swap you one prize for another.

### OTHER EAA CHAPTERS

If you're a builder, you are probably glued to your project and don't realized that there are other things in life than glue/epoxy or rivets (as the case may be). But it's true, there are others out there: even other EAA chapters. So if you happen to stray from your project, consider attending the meeting of some other chapter. Following is a list of local chapters and their meeting details. Refer to your latest EAA directory for more information.

Chico	327	3rd	Thurs	7:30	Ranchaero Airport
Eureka	771	2nd	Tues	7:00	Murray Field N. Air Term.
Fresno	376	Last	Tues	7:30	Chandler Airport Aero-Sqdn
Hayfork	824	3rd	Thurs	7:00	Hayfork Airport
Livermore	663	1st	Thurs	7:30	Livermore Airport Terminal
Modesto	90	1st	Tues	7:00	Modesto Airport Hanger 1
Montague	654	1st	Thurs	7:30	
Monterey	204	2nd	Wed	7:30	Salinas Airport, Hanger 0-5
Napa	167	1st	Tues	7:00	Napa Airport Bridgeport Rm
Paradise	735	1st	Wed	7:00	7420 Skyway Meeting Hall
Placerville	512	3rd	Wed	7:30	Placerville Airport (EEA Hanger)
Redding	157	3rd	Tues	7:30	
Redwood City	20	2nd	Tues	7:30	Ampex Cafeteria
Roseville	526	2nd	Wed	7:30	Placer S&L, 110C Harding Blvd
Sacramento	52	Last	Tues	7:30	Executive Airport
San Andreas	484	2nd	Fri	7:00	Calaveras Co. Airport Hgr B
San Jose	338	2nd	Tues	7:30	Ewert's Photo, Santa Clara
San Jose	62	1st	Thurs		San Jose H.S., Julian St.
Santa Rosa	124	1st	Wed	7:30	Sanoma County Airport
Susanville	794	1st	Tues	7:00	Susanville Airport Lounge
Watsonville	119	1st	Wed	7:30	4410 Opal Cliff Dr., Santa Cruz

### OTHER CONTRIBUTORS

This month we have two people who have come through and submitted something for publication: Dennis Romano and Ryan Young. Thanks fellas for something other than my own stuff to read. Hey why is it that contributors seem to be young guys. Where in hell are you "older" members (Lyle doesn't count--he just stays young regardless of the calendar.)

## Eric Schuldt

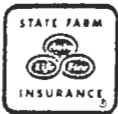
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## NO PERSONAL PROFILE THIS MONTH

Here I am crabbing about you "senior" members not contributing to the newsletter and I drop the ball on this month's personal profile. I had a choice. Interview someone for the column or lay 700 square feet of hardwood parquet at home. When I balked at the flooring task, my wife grabbed my attention with "No problem I'll hire a contractor." Good grief, that's hard work. Next month I'll be back on track with a good profile.



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## SUN 'n FUN '92

Dennis Romano

Through sheer dumb luck, I found myself at a business meeting that finished in Jacksonville FL late in the day on April 10th. Rather than return home immediately, I decided a drive southwest through Florida was in order, with a stop at the Lakeland airport. It just so happened that there was an airshow in its final day there. Anyway, after a departure in darkness from Jacksonville and a 3 1/2 hour drive, I was there! As I had a flight to catch from Tampa that evening, I only had about 6 1/2 hours, so I blitzed it. Following are my impressions.

First, I have not yet made it to Oshkosh (my first view of Oshkosh will probably be from the left seat of a newly completed Cygnet), so I really can't compare the two. Second, a storm blew through the previous night, with 50 mph winds and "buckets" of rain reported. This, combined with it being Saturday and the last day of Sun 'n Fun, probably resulted in fewer show airplanes than there were earlier, though all the "factory" airplanes were there. I was able (through similar dumb luck) to attend the day before the official opening of Sun 'n Fun 1990, and there seemed to be fewer show planes this time than in 1990, confirming my suspicions.

What a beautiful place for an airshow! Grass everywhere, trees at the entry area, good permanent facilities, nice camping areas, friendly people, no trash on the grounds, easy parking.....

There are two separate areas, the "main" area for all of the larger aircraft and associated vendors and a separate ultralight/light aircraft area with the campground in between the two areas. Each has their own runway(s) and manufacturer display areas. I first visited the ultralight area. Due to the previous night's storm, some of the manufacturers and vendors were already packing up, as apparently they had gotten the worst from the storm, including at least one damaged aircraft. The focus

on the flying seemed to be demonstration of impressively steep climb-outs. TEAM had a partially completed prototype of a two place side by side, Mosler powered, wooden "Kitfox type" airplane with folding wings (though width folded was about 10 ft). Looked big and roomy, with a projected cruise in the 85 mph range. The Kolb Laser looked very nice, as did many others. Also especially nice looking was the Murphy Rebel; some real potential for fun in a metal high wing taildragger with a big cockpit that flies three and sleeps two. The Mosler powerplants seemed to be very popular, as many (me included) apparently don't fully trust two strokes. The present preferred configuration is one electronic ignition system and one magneto.

Next, I walked over to the main show area. One of the first things I saw was the Gee Bee replica (see March Sport Aviation); more on this later. After a brief walk around the airplane display area, I cruised through the manufacturer/vendor display area. Lots of opportunities to spend money here! Due to lack of time, I didn't stop much, however two things of interest were noted. As many of you know, I'm building a Cygnet, which is a true composite airplane (steel, aluminum, wood, fabric, fiberglass, etc.). I don't have a welding torch yet and had heard a great deal about the Dillon/Henrob. I got a demo and to say that I'm impressed is an understatement! I watched (by an obviously experienced welder) butt welding of CRES ("stainless"), thin aluminum (that's right, gas welding aluminum!) and mild steel, all approximately 0.040" thick. All welds were uniform, with complete penetration and very high quality. The mild steel was done with a large gap which was filled in very smoothly with apparent ease. Cutting was also demonstrated. Again, control was excellent and the cut was only approximately 0.050" wide; it appeared that you could even "bell mouth" tubes for a steel tube fuselage using it. There were examples of approximately 0.325" steel with what appeared to be gear teeth cut cleanly into it. Anyone considering welding equipment should definitely give this one serious consideration.

The other item of interest was the Croix low pressure/high volume turbine spray system. I got a brief demo, and it seemed to do all they claim; i.e., minimal overspray, easy to use, easy to clean. This looks like a better way to paint than conventional high pressure systems.

Finally, the "main" aircraft area. The Harley Starblazer [I'm not making this up!] was there, though it was not yet finished. It's sort of a Cirrus VK-30 on steroids, 6-8 place all composite (pressurized, I think) and very fast. It can be powered by either a 1,000 HP turboprop or twin 550 Lycomings or Continentals, or equivalent (twin V-8s?), geared together driving one pusher prop. This is essentially a Learfan homebuilt. An incredible project! It had not yet flown, should be spectacular, but BIG \$\$\$\$\$\$\$

Another airplane I found of interest was the Aerovisions (Mike Fisher) Horizon 2. This looks sort of like a Cub (tandem, high wing), with a Cessna 152 "greenhouse", powered by an 80 HP VW conversion. About a 95 mph cruise, easily folding wings, fabric covered all wood structure, and my 6'1" frame fits fine (better in back, from whence you fly solo). Nice airplane; kits are available, as are plans.

To me, the most striking airplane there, both on the ground and in flight was the Gee Bee replica. Beautiful

workmanship, and incredible in flight. Barrell rolls (they all are at least done by a "barrell!"), point rolls, high speed ("only" 265 mph due to a tight engine!), seemed very controllable. He really put on a good show.

The Berkut is an impressive evolution of the EZE. It looked good during its high speed passes, as well as on the ground.

The Montana Coyote was has definite fun possibilities. This is sort of an overgrown Kitfox. It has a BIG cabin and baggage area [sleeps two!] and good STOL/unimproved field performance. Original power was the Rex Taylor belt drive Honda Prelude, but it now has a 125 HP Lycoming. I had a nice chat with Patrick Taylor (formerly with HAPI) about it and other topics (such as the ownweship of the rights to the Cygnet design).

One of the best looking and sounding airplanes during the high speed passes (of which there were many) was the Cirrus VK-30. Probably would have sounded even better with a V-8. [Do it for us Gerry!]

I have been to many airshows, but I have never witnessed a performance like that by Patty Wagstaff (the current U.S. Aerobatic Champion). It is easy to become somewhat bored or jaded after watching a lot of airshow routines, but if you have a chance to see her, do it! The term "crisp" takes on new meaning after watching her perform.

As I noted previously, I only had one day. There are many airplanes I haven't mentioned, including the Ultrabat (neat little aerobatic airplane!), YAK, Zenair Super Zodiac, various RANS aircraft, Glasairs, Lancairs (including the IV), B-17, B-25 and many more.

This was going to be a short article, but as you can tell, I thoroughly enjoyed myself. I ran through most of Sun 'n Fun, not having time to attend any of the numerous forums or really look over the items for sale or being demonstrated. If you are able to attend, one day is OK, but you really need two or three minimum. The weather is a bit unpredictable (witness the storm friday evening), the approximately 85 degree + 85% humidity Saturday, and it was starting to sprinkle as I drove to the Tampa airport. However, be prepared, bring a good pair of walking shoes, sun screen, an umbrella, and by all means GO!!!! I'll have a few pictures at the next Chapter meeting and will be happy to share any further thoughts then.

## COMMENTS HEARD 'ROUND THE HANGERS

(some stolen from elsewhere, some original)

*Lou Ellis:* I never swore until I started building a Glasair--Godamnit.

*Don Best:* I never swore profusely until I started building a Glasair--gosh darn it.

*Lyle Powell:* My goodness.

*Note:* After Lew Miller installed a 320 in his Long Eze, he had a terrible time getting the throttle control to work properly.

*Lew:* I've found a lot of **simple** answers but unfortunately all of those are wrong.

*Harry Heckman:* But Randy, I'm telling you that a light year is exactly like a regular year except it doesn't weigh as much.

*Ron Carter:* Come on Harry, the word is *lite* year which is a year in which lite beer outsells regular beer.

*Randy Alley:* Are you guys putting me on?

*Gerry Greth:* If problems are opportunities, I have a lifetime of opportunities.

*Note:* Phil Jenkins and Bob Decker are partners working on a Glasair.

*Phil:* Let me get my thought out on the table. Then you can slice it up like bologna.

*Bob:* If we can kill it before it gets out we won't have to fool with it.

*C.C.C. Supervisor:* I hate to admit it, but on that airport thing we are ignorance leading ignorance.

*Innocent Bystander:* No, it looks to me like it's special interests leading the pack.

*Mike deHate:* (Talking to me after a test flight of my Lancair): Will, I hate to be a pimple on your behind, but ...

*Frank Williams (of Arnav):* When Will Price finally realizes how complicated his airplane is, he'll be running for the hills.

*Lyle Powell:* You don't need a speech from me but I can't help myself.

*Glenn Werner:* My God you're slow Harry. You know, that's because you're still trying to make sense out of that damned Lancair manual.

*Harry Heckman:* At least when I finally figured out that nothing in the manual made sense, my tension level dropped way down.

*Rick Lambert:* Our projects are often like growing mushrooms. We keep them in the dark and cover them with shit.

*Pete Wiebens (after spending 10 years building his Glasair):* Logic makes the rules but experience makes the exceptions.

*Ed Vallejo:* You know Pete, there's nothing like a little experience to upset a theory.

*Vern Bolz:* The only substitute for intelligence is a closed mouth--that's all I have to say.

*Andy Marshall:* Yes, I understand. Just explain it to me.

*Ken Yoskowitz:* Fiberglass is temporary but aluminum is forever.



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*Fred Egli:* You don't get a second chance to do it right the first time.

*Jordan Coonrad:* It's a lot faster to do it right than to do it again.

*Dwain Duis:* I know a lot more than I understand.

*Callie Joyner:* Sometimes I think I get smart slow and stupid fast.

*Rich Powell:* A list today keeps hysterics away.

*Paul Kunkel:* Whenever I try to work on my GP4, I find that each solution generates a lot more problems.

*Jim Lewis:* A closed mouth gathers no feet.

*Larry Laughlin:* A closed mouth gathers no calories.

RICHARD S. POWELL



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## WHY A SONERAI?

by Ryan Young

I've wanted to build an Experimental Airplane for over 20 years, since my imagination was fired by the BD-5, Vari-Eze, Quickie and KR-2, and my father's pursuit of his commercial license under the GI Bill. Now I have Sonerai III project in my garage. How did we get here?

To some extent, I learned to fly so that I could build. But once I got my license, I had a strong hankering for my own plane, and it seemed pointless to build when used factory airplanes are available, insurable, and resaleable, and for the same or less money than a project, without the investment in time. You can buy a decent airplane for less than the cost of most kits for even the most basic homebuilts. So I looked at Tri-Pacers, Yankee's, PA-140's, C-150's, etc.

A close look at the true costs of ownership showed me that unless I flew at least 100 hours a year, I can rent cheaper than I can own (I fly with the Alameda Aero Club, and our rates are very, very low). I fly strictly for fun, with maybe a long-distance vacation thrown in once a year, I would never fly that many hours. So for practical utility, there is no point in me owning at all, homebuilt or factory built.

Good, we know where we stand, and it's not within rational confines.

So why build? These are my answers: 1) For the fun and challenge of building. 2) To get an airplane that can't be bought in the market.

But what airplane? For me to make a choice, I need a criteria, and that starts with a needs analysis, which in this case degenerates into a wants analysis. This is what I came up with:

1. **FUN!** I want an airplane that's fun to fly. I can rent boring 150's and 172's from the club. Great load carriers, comfortable, perfect for vacation trips, but BORING. Something faster, lighter on the controls, capable of limited aerobatics. Take a friend occasionally, but my homebuilt will NOT be a heavy duty traveling machine.

2. **SAFE** Who wants to fly an airplane that scares them? I see beautiful projects, yes, even in our club, that I certainly wouldn't want to fly, and I suspect even the owners might admit are lacking in manners. Overweight, over-powered airplanes, and we must admit they're out there, can get snakey in a hurry. Another aspect of safety includes crashworthiness. Finally, I plan to fly out of Oakland, an area with dense traffic and population. Proper equipment and engine reliability are essential.

3. **EFFICIENT** Efficiency is a big thing with me. I don't own a car, I ride my bike or take public transportation wherever I go, although my spouse has a (small) car & I do cheat. This is almost a moral value in my life & I want my airplane to reflect that. I find it hard to justify using more gas in a day of flying than I would use in several months of ordinary living. Since when I fly, I'm not doing anything "productive" or "useful", 6-9 GPH seems horribly wasteful.

There is an assumption here that is worth noting: every airplane is a compromise, and no one airplane can fulfill all needs, wants and missions. The more narrowly focused the design is, the simpler, cheaper, and trouble-free it tends to be. Horses for courses.

The next thing I need to make choices is information. I subscribed to KITPLANES and joined EAA, and clipped anything interesting out of each issue to reduce the bulk of my growing library. You can get a complete index of all EAA publications for find article on your airplane, and KITPLANES produces it's own annual indes. I got brochures on any design that looked interesting, I went to airshows, Chapter 393 meetings, and talked with Rich, Lyle, Jordan, etc.

Two other very important sources of information are Newsletters and EAA Accident Reports. Once you narrow down your list of candidate projects, invest about \$(SA)15-20 in a year's back issues of the airplane's newsletter. You can get newsletter addresses from the kit manufacturer, from EAA's information line, or from the magazines mentioned. KITPLANES occasionally prints lists of newsletters. Quality is highly variable, from nothing but company propoganda and sloppy production to downright ornery criticism & semi-slick presentation, but most of them are full of information about the designs, included projects for sale.

The EAA collects accident data for most common homebuilts, and will send you a copy if you send a request with \$(SA)5.00 for each class to Ben Owens at headquarters. The reports are thin on details, but show the patterns of accidents. I avoid airplanes with apparent structural failures, or controllability-related accidents. Careful construction and flying will keep YOU out of the vast majority of the accidents reported, where people were very, very careless or stupid or both. (Would you believe leaving the wing bolts out of the outer panels of a Vari-Eze? For 2 years? Carving a KR-2 prop out of a solid chunk of redwood?)



## ONE FOR LARRY

Recently I was speaking with a relatively new member who told me that he did not get to meetings very often. However, he kept in touch with things through the Cleco. In fact, the primary reason he's retained his membership is that he has enjoyed so much reading the newsletter. (That made me feel good because I know I'm a good writer but it always gives me a charge to hear it from an unbiased reader.) But then the bottom fell out as he continued. "You know, that guy Larry did such a great job and was really funny. Oh yeah, and your newsletters are almost as good."

Oh well, Mom warned me about days like this!!

## CALENDER OF EVENTS

The following calender of events has been assembled from a variety of sources. Please note that I don't guaranty the dates. In some cases I have included phone numbers that you can call for more information.

- |                  |   |
|------------------|---|
| June 5-7         | Merced Antique West Coast Fly-in.   |
| June 12-14       | Porterville Fly-In. Call (209) 781-0706 or (209) 782-1928.                      |
| June 13          | Prospect Fly-in, Prospect International. Call (503) 560-3647 or (503) 560-3667  |
| June 20          | Lakeport Fly-In.  |
| June 26-29       | Air Race Classic, Thermal, CA to Elk City, OK Call (512) 289-1101               |
| June 27-28       | Truckee-Tahoe Airshow. Call (916) 587-8527 or (916) 587-4540                    |
| June 27-28       | Lions Air Show Ukiah<br>Call (707) 462-3239 Days or (707) 462-2015 after 6 P.M. |
| July 4           | Oakwood Lake Resort Airshow, Manteca. Call (209) 632-2689                       |
| July 8-12        | Arlington, WA Fly-In  |
| July 11          | Saturday Special Event, Chino Airport Air Museum. Call (714) 597-3722           |
| July 15-16       | Evergreen Fly-In  |
| July 15-16       | Madera Fly-In   |
| July 18-19       | Air racer/Warbird Fly-In, Nut Tree. Call (707) 447-4476 or (510) 866-2881       |
| July 25-26       | Airshow '92, Santa Paula airport.   |
| July 31-August 6 | OSHKOSH   |
| Aug 7-9          | Palms to Pines Air Race, Santa Monica, CA to Bend, OR. Call (310) 397-2731      |
| Aug 29, 30       | Pacific Coast Air Museum (Sonoma County) Open House                             |
| Sept 5 (or 6)    | Chico Airshow   |
| Sept 17-29       | Reno Air Races. Call (702) 972-6663   |
| Sept 26-27       | Reedley, CA Airshow   |
| Oct 3-4          | Salinas Airshow   |

## NAVAJO OR NAVAHO

Someone pointed out to me that the reference to Navajo Aviation in last month's Cleco was spelled Navajo twice and Navaho twice. That was no mistake; it was equal opportunity--or something.

## NEW MEMBERS

Last issue I mentioned **Tom Smith** as a new member whom I couldn't reach before the Cleco went to press.

We finally made connections and our Club seems to have another really interesting guy with us. Tom has been involved in aviation one way or another for quite a spell. He worked as an airframe mechanic in the military and for a while as a civilian. He is now an electronics engineer for Terradyne. On the flying end of things, he has been doing that since 1982. Currently he is building a Watson Wind Wagon, an aluminum tail dragger. It grosses about 525 pounds and uses 1/2 VW engine. Progress-wise, the fuselage is complete so presumably he has something that at least looks like an airplane. Welcome to 393, Tom.

Don't know how many of you were like me and did not know that **Ron Sorenson** is a member of 393. I stopped by Navajo recently to meet him and had a pleasant conversation. He is an *enthusiastic* supporter of EAA and feels that it is one of the few aviation organizations that is truly effective. Bet not many of you knew that he bought a Glasair kit way back (when they were \$7,500). Unfortunately, when he went with Navajo, the time simply did not exist to work on it so he sold it.

**Terry Tressel** is the Sales and Business Development Manager at Navajo. (You see his card elsewhere in this month's Cleco.) He does not fly but he did get as far as soloing more years ago than he likes to remember. But then marriage, family, and earning a living took first priority and he never got back to it. He joined to show his support for our organization. Very nice gesture, Terry--thanks.

**Jay Hayashi** has no project now but is hoping for a Lancair. Need to talk to him to get more particulars for the next newsletter.

## INTERCEPTED FROM THE AIRWAYS

*Mooney 666RG:* Mugu approach, Mooney Triple Six Romeo Golf requesting advisories.

Mugu: Mooney Triple Six Romeo Golf, say position and destination. Do you have a transponder?

*Mooney:* Six Romeo Golf is over the power plant and headed for Santa Monica--affirmative on the transponder.

Mugu: Six Romeo Golf, I don't see your transponder. Recycle and squak One Two Three Four.

Mugu: Six Romeo Golf, it appears your transponder is inoperative.

*Mooney:* Roger Approach. It's been broken for a couple of weeks now. I took it out last week to get it worked on.

*Cessna 1234:* Oakland Center, Cessna 1234 is over the San Jacinto VOR and would like flight following to Orange County.

*Oakland Center:* Sir, I'm not familiar with the San Jacinto VOR. Tell me, are you north or south of San Francisco?

*Cessna 1234:* I'm north of San Francisco.

*Oakland Center:* You're probably referring to the Sausalito VOR.

*Cessna 1234:* Sausalito, San Jacinto, whatever. Those names all sound the same to me.

## THOUGHTS FOR THE MONTH

(mostly stolen from elsewhere)

In thrust we trust!

Question assumption

An expert can take something you already know and make it sound confusing.

Subvert the dominant pragmatism

Avoid stress by always landing at an airport.

For CFIs, avoid stress by peeing whenever you get the chance.

*You know you've been flying too much when:*

You pull out of the driveway and start to drive centered on the white line.

You use the emergency brake to drop the flaps.

You roll down the window and yell "CLEAR" before starting your car.

It gets foggy and you immediately stare at the dash.

You get out of your car and start looking for tie-down ropes.

## THE LIFE OF A NEWSLETTER EDITOR

Thought you might be amused with the following from the Chapter 526 (Roseville) newsletter.

*EAA CHAPTER 526 Roseville*

*Minutes of regular meeting 2/12/92*

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(Note: The editor had a ton of typos but unfortunately my word processor will not allow me to duplicate them.)

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- *My appoligies for the many typos. My typing hasn't gotten any worse, I just used up my eraseable ribbon.*

- *Lowell Smith secretary*

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## MOTION

*I THINK THIS FREE FORM SPELLING IS GREAT BUT I WILL MAKE A MOTION THAT WE BUY LOWELL A NEW ERASER RIBBON.*

## PROPELLER PERFORMANCE

(from Aviation Consumer)

Sadler Aircraft found its trainers with fixed pitch props exhibiting "poor performance", because of small chips in the paint. Apparently the chips on the back side of the propeller were painted over resulting in a surface that was not smooth thus reducing the efficiency of the blade. They noted surprising improvements by removing all the old paint and then repainting. One aircraft gained 100 RPM after receiving this treatment.

## FROM AVIATION SAFETY

Here's something I came across in Aviation Safety that I thought you might find amusing.

"...In Beeches, for example, the entire landing gear retraction and timing mechanism is under the two front seats. The crank for emergency extension sticks out behind the seats. Should the motor fail, the pilot should slow down, pull the circuit breakers, extend the crank and then do the work of the electric motor. *But if the linkage jams, the crank isn't going to work any better than the motor did.*

I heard of one pilot who removed the seats (SEATS!) from a Bonanza, opened up the area where the landing gear mechanism was, and removed a Swiss Army knife that had somehow found its way into the works. He then reassembled the airplane and landed."

## Larry Kett Laughlin



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## WARNING!! THEY WANT THE LEAD OUT

From the UC Berkley Wellness Letter comes an article on lead content in wine. A government report shows that lead content in wine--especially imports--far exceeds the maximum level permitted in drinking water. In response, wineries in California have taken steps to reduce lead in their products.

Now if that isn't a shocker! It's another example of agencies taking action without fully considering all who might be affected by that action. In view of the fact that we *require* leaded fuel (we certainly cannot jump into the present no-lead auto stuff), we had better take quick action to ensure that our interests are protected. Can you imagine: unleaded wine for us without prior warning? ..... Wait a minute; am I confusing issues?

## FORMULAS

There's nothing like a good formula to make your day. (If one is good, then two must be twice as good.) Anyway, Pete Wiebens offers the following automotive vehicle performance formulas. Note that Pete gave these to me for the April issue but I ran out of space so couldn't include them. Unfortunately, I had the newly printed April issues at the hanger when he came over to fly with me. He picked up a copy and thumbed through the entire issue, I'm sure looking for his formulas. Obviously, he didn't find them. Have you ever seen a grown man pout? My advise is don't fly with your CFI if he's pouting over his unpublished formulas.

$$\text{Horsepower} = \frac{(\text{mph}^3 \times \text{frontal area})}{150,000}$$

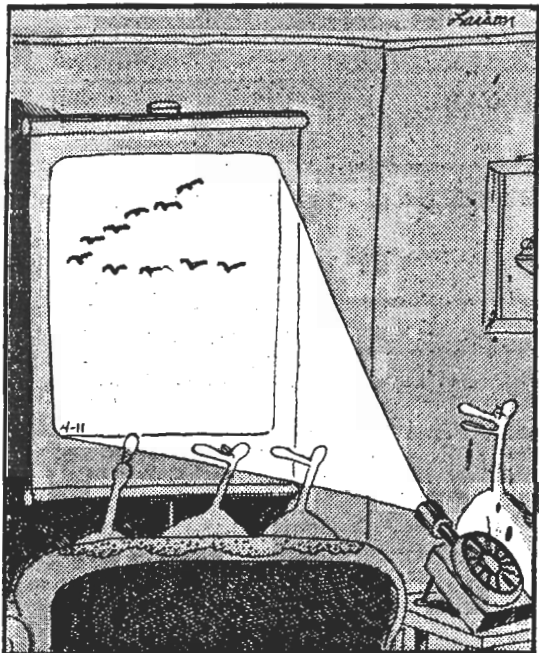
$$\text{Air resistance} = 0.0025 \times \text{mph}^2 \times \text{frontal area}$$

Where:  
frontal area is in square inches  
Air resistance is in pounds

I'm not quite sure what you should do with them but at least you now know.

## PETE WIEBENS AS A MALLARD

**The Far Side**/Gary Larson



And here we were last summer going south.... Wait a minute, Melody! We went north last summer! The stupid slide's in backward!

### THE ENGINE CLINIC

(The following article is from a publication that Jim Lewis felt would be useful to reproduce. Unfortunately, I have misplaced the article so do not know where it was taken from.)

Lycoming engines have built a reputation over the years for valve sticking. To my knowledge, nobody has ever found a specific fault with Lycomings that they can point to as a definite cause of valve sticking. Theories abound, of course. Oil coking on valve stems, excessive wear in the guides, inadequate clearance in the guides -- everyone's got some pet idea as to what's behind a stuck Lycoming valve. Recently, though, I've noticed a new and strange trend in engine operation that makes me wonder if perhaps excessively lean operation isn't behind a number of these stuck valves.

A few years back, during a late hangar flying session, one pilot I know (who shall remain nameless, though not blameless, as you shall see) expounded on how he treated his engine right. His particular powerplant was a Lycoming O-320. He felt he was doing the right thing by treating the engine very gently, babying it.

Among other things, he pointed out how he tried to avoid maintaining full throttle for long periods. He said he would takeoff and make his initial climb at full power, but then he would throttle back "just a bit" to clip about 200 rpm off the tach reading. He figured that the engine wasn't working as hard, so it should last just that much longer.

Not long after that he told me, rather excitedly, about how he'd just managed to make it back to the airport after the engine began running extremely rough during climb. His mechanic found a stuck exhaust valve afterwards. "I just can't figure it out," he said. "I kept up with the oil changes, never overheated the cylinder heads. But I still wound up with this."

There was something vaguely disturbing about his experience, but off the top of my head I couldn't pin it down. Months later, it finally dawned on me: He had made his valve fail by unintentionally leaning the engine in climb. Although he'd believed he was making life easier for his engine by throttling back just a bit in climb, what he'd actually been doing was defeating the power-enrichment feature of the carburetor. Despite the multiprobe EGT/CHT unit on his panel, he'd fried his exhaust valves without even knowing it. The one that stuck just happened to be the leanest cylinder, thus failing first. Although temperature indications for CHT remained within normal limits below 400 degrees, temperatures at the exhaust valve face got high enough to raise hell.

Since then, I've come across plenty of other pilots who mistakenly feel the same way. They think they're saving both their engines and fuel by throttling back just slightly in climb. They believe all they're giving up is some rate of climb. Actually, they're overheating their engines (or at least their valves) and not realizing it.

For most normally aspirated engines, the last quarter-inch or so of throttle movement makes no difference in engine rpm or manifold pressure -- it all goes to the power-enrichment function. At best-rate-of-climb airspeed, the engine is running short on cooling airflow to begin with. Without the extra cooling provided by the extra fuel of power enrichment, some parts of the engine (probably the exhaust valves) are going to run too hot.

More recently, I came across an article by Bill Marvel in "The American Star" (official publication of the American Yankee Association). Marvel, too, noticed some interesting operating practices. He wrote about some Grumman Tiger pilots who intentionally leaned the mixture during climb, believing that the engine was running at less than 75% power because of low rpm indicated on the tachometer. Writes Marvel, "... I somehow had acquired the erroneous idea that with a fixed-pitch prop it was not possible to get 75% power in (a) climb due to low prop rpm, and, therefore, it was okay to lean in climb at any altitude so long as the CHT remained below 400 degrees."

Under any other circumstances, leaning below 75% power is just fine. However with a fixed-pitch prop during a climb, even though the tach is showing an rpm that's less than 75% cruise power, the engine is still running at a much higher power setting. You get high manifold pressure even though the engine is running at a reduced rpm.

Marvel worked out an interesting table that showed, for example, that climbing through 1,000 feet with 2,470 rpm on the tach was an actual engine power setting of 93%. As you might imagine, leaning an engine at this power setting is not good.

Again, though, the ill effects of such leaning are not immediately apparent on any of the cockpit gauges. Both CHT and EGT will remain within limits, while the exhaust valves find themselves in a terribly overheated state. Later, when they've had enough, they just give up the ghost -- usually at a most inopportune time.

Does it profit a pilot to save some gas and yet lose his engine over the trees at the far end of the runway?





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### WANTED TO RENT

If anyone has a hangar they would like to share with a Cessna 140 (in pristine condition) you can contact Stu Bowers (who is also in pristine condition) at 254-0804.  
0592

### HELP

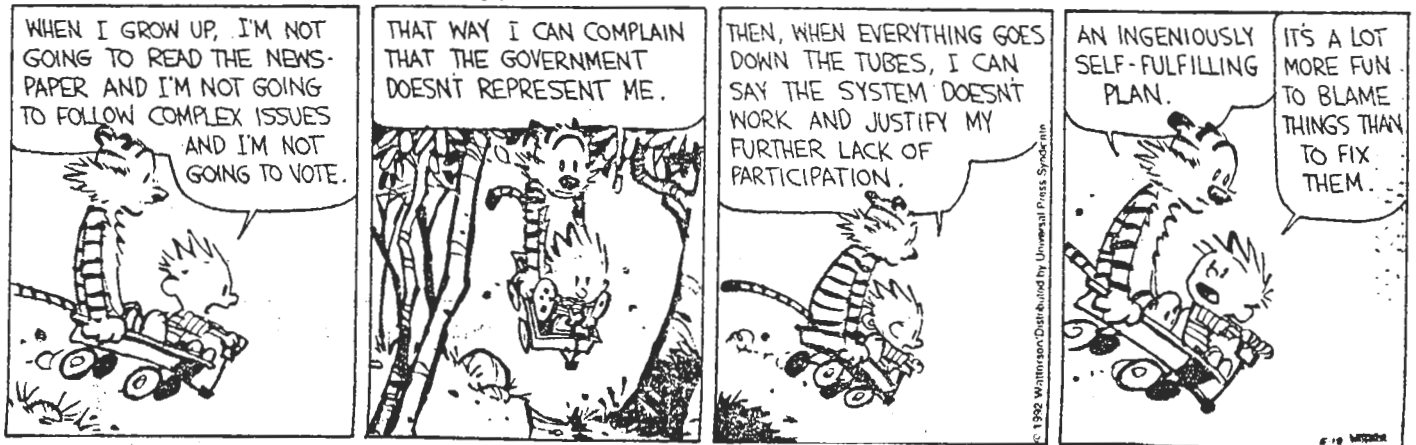
Need some expert advise regarding Oriental and Persian rugs. (The parquet flooring was only the beginning.) I need a brief schooling regarding what distinguishes a good rug from a so-so one as well as other critical info before laying out hard-earned cash. Right now I flounder in total ignorance. Will Price 254-2267.

The END

## ADDENDUM

In the minutes of the meeting I mentioned that Pete and I met up with Jim Lewis over the mothball fleet. Not quite complete; we met Jim *and* Larry Laughlin. Thought I had better mention Larry because I certainly don't want to see him pouting and writing a nasty letter to the editor about being neglected. For an Eze, your plane looked great too, Larry.

## Calvin and Hobbes/Bill Watterson



Could it possibly be that I am trying to make some kind of a point here?

# The C eco

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