



## Experimental Aircraft Association

### CHAPTER 393

P.O. BOX 2269, Walnut Creek, CA 94595  
**Concord, California**

**PRESIDENT**  
Kay E. Smith  
415/825-4211

**VICE PRESIDENT**  
Richard S. Powell  
415/229-1281

**SECRETARY-TREASURER**  
Lou Ferrero  
415/672-7539

**NEWSLETTER EDITOR**  
Bill deProsse  
415/827-0199

**COFFEE HOST**  
Louie Goodell  
415/682-4198

**CHAPTER MEETING - WEDNESDAY EVENING, 7:30 P.M.**  
**MAY 27, 1987**

The program this month will be a talk by Dick Hunt on the practical layman's approach to oxygen requirements for flying. Dick is a member of Chapter 124 in Santa Rosa. He is an anesthesiologist by vocation and has many hours in his Cherokee 6 by avocation, so he knows whereof he speaks. I am told that he really knows the subject well, and that he generally throws a little humor into his presentations. So this promises to be a good program. Bring a chair and a friend and be prepared for an evening that will be educational as well as entertaining.

We are all set for the Fly-In to Columbia on May 30 - 31. You can fly or you can drive. You can camp out or walk to a nearby motel.

You can cook out, or eat locally. Bring your own food and drinks. This promises to be a real casual and fun event, filled with lots of relaxation, sitting around swapping lies and tall stories, kicking tires or polishing the bugs off your windscreen. Please understand that this is not an official Chapter 393 sponsored Fly-In. It is merely a "gathering of the clan" and neither the Chapter nor any of its members take any legal responsibility. (Sorry folks, had to put that in because of the nasty turn this whole nation is taking in regard to insurance and the lawsuit happy ones).

Welcome to our new member:  
Tom Lewis, 1433 Mazda Drive, Walnut Creek, CA 94596.

Speaking of legal matters, President Kay has announced that Neil D. Reid of the law firm of Reid and Axelrod, 770 Tamalpais Dr., Corte Madera, CA 94925 (415+927-7700) will give free advice and low-cost representation to Chapter members on FAA matters.

EAA and the 99's are invited to the June meeting of MDPA, at the Water District Building, 1331 Concord Ave., at 7:30 P.M. on June 19. Master Plan consultants Dave Hodges and Mike McClintock will be there to solicit your input for the new Master Plan. Let's all go.

The Flight of Eagles is really revving up. It departs July 30 and returns August 6. For \$498 you get 8 days/7 nights double occupancy, jet flight, trans. to lodging, in-flight meal, lodging, admission at EAA, "Eagles" cap, tour director, and a cruise of Lake Winnebago on the Valley Queen II. Call 714+599-6879. Boat cruise only, \$20 per person.

# EAA



# EAA CHAPTER<sup>2</sup>

NUMBER 393 OF CONCORD, CA ZIP \_\_\_\_\_

● A LOCAL CHAPTER OF THE EXPERIMENTAL AIRCRAFT ASSOCIATION, INC. ●

## GENERAL MEMBERSHIP MEETING March 25, 1987

President Kay opened the meeting at 7:35 with "Hi boys, I'm your bunny, Kay!" No other women present at the meeting. She mentioned Lyle Powell's article published in Sport Aviation. Congrats.

Minutes from previous meeting approved as published - m/s/a. Treasurer Lou Ferrero gave his report - m/s/a.

Contra Costa Aviation Alliance is active and has asked for land to be set aside in the Master Plan for the airport.

Airport Day at Buchanan is June 21st (Father's Day). A good turnout is planned - static displays, etc. We will have info table like last year and need volunteers to help staff it.

May 30 - 31 is Chapter 393 Fly-In at Columbia - good camping or motel facilities - drive in or fly in, bring your own food and drink, soak up some rays. Good restaurants in town, within walking distance. Tell a friend, though make it clear that this is not a Chapter sponsored Fly-In! We will have our regular May meeting - Dick Hunt will talk about a practical approach to oxygen requirements & flying.

Sasha Munir must retire from the Board of Directors due to other commitments. We need more Chap. members to come to the Board meetings.

Kay mentioned that Dick White, Jr. would like to sponsor a trophy for best Glasair or other homebuilt design in memory of Dick and Corinne White. Chap. 393 would help. Will work on it.

Civil Air Patrol would like 393 to give program, re: experimental aircraft, to cadets some Monday evening - volunteers? Contact Duane Duis.

CAFE 400 is on - June 26 - 27. Reduced prizes due to sponsors cutting back, but planned to be better than ever with expanded Triaviathon. Need volunteers for ground crews.

Voyager Impressive People party May 8 - Dick & Jeana to be there.

Our program was by Andy Marshall, a long-time 393 member, and a composites expert. Andy gave a good overview of the materials, costs & applications of glass & fiber products. Thanks Andy!

Respectfully submitted,  
Rich Powell, V.P.

## EXPERIMENTAL AIRCRAFT ASSOCIATION

## CHAPTER 393

## 1987 CALENDAR

CHAPTER MEETINGS - The 4th Wednesday  
of every month - 7:30 P.M. at  
Buchanan Field Terminal Building  
EVERYONE IS WELCOME! Bring Chairs!

BOARD MEETINGS - On the dates  
listed below (usually the 2nd  
Tuesday each month) - 7:30 P.M.  
at Navajo Aviation. Chapter  
members are welcome.

## MAY

Board - May 12th

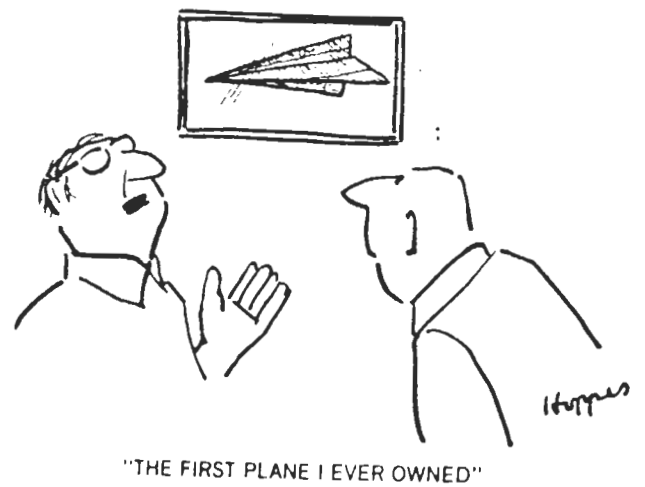
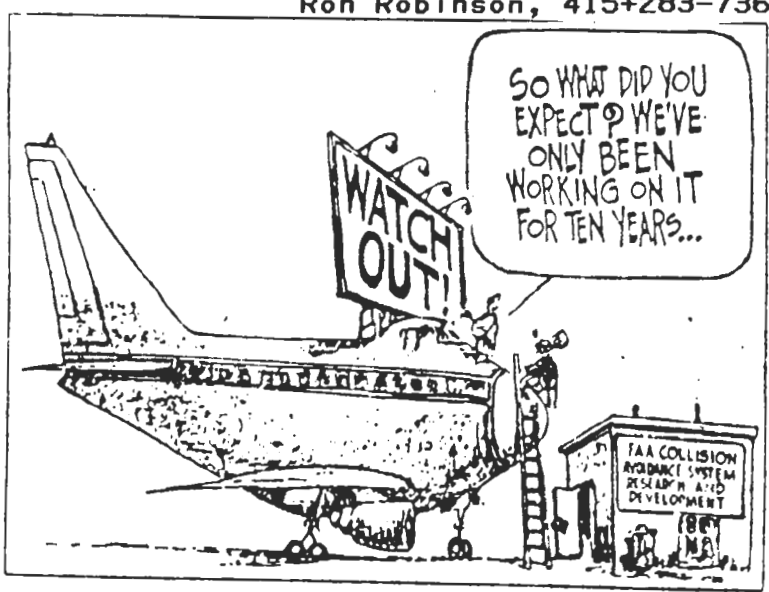
Chapter - May 27th - Dick Hunt will talk about practical oxygen systems.

- May 22-24 - 23rd Watsonville Air Show. Phone CofC, 408+724-3849.  
May 22-25 - 1st Annual International's Womens Air Show, Brown Field,  
San Diego. Shows, racing, US vs. France Aerobatics,  
airline & military pilots and more. Nancy Callahan,  
619+421-1386.
- May 23-24 - Air Expo, Camarillo Airport.  
May 29-31 - Cessna 120/140 Fly-In, Enterprise Airpark, Redding  
May 30-31 - No Host/No Sponsor Chap 393 Fly-In to Columbia Airport.  
May 30-31 - Air Expo, Stockton Airport.  
June 5-7 - 30th Annual Merced Antique Fly-In. Phone 209+722-3145.  
June 12-14 - 37th Annual Moonlight Fly-In, Porterville. Airshow Sat.,  
moonlight dance, barbecue, displays, craft show. Food  
& camping available. Harry Dellicker, 209+539-2506.
- June 13 - Blue Angels performing at Mather AFB, Sacramento.  
June 14 - Kings Co. Lemoore Air Show, Lemoore. Blue Angels  
perform.
- June 18-21 - No. Calif. Aerobatic Championships, Paso Robles, CA.  
Drew Detsch, 415+826-7187 or 415+648-6900.
- June 20-21 - Truckee-Tahoe Air Show. Bipes, racers, helos, warbirds,  
aerobatics, stunts, hot air balloons, military aircraft,  
parachute jumps. Phone 800+822-5959 (free call).
- June 21 - Buchanan Field Open House, Concord. Military and private  
static displays. Phone Concord CofC, 415+682-1181.
- June 26-27 - (Tentative schedule) CAFE 400 & Triaviathon, Santa Rosa.  
June 27 - Thunderbirds perform at Travis AFB, Fairfield.  
June 27-28 - Comanche Fly-In, Ashland, Ore. Roger Smith, 503+268-2229.  
July 11 - Fly-In sponsored by Golden Empire Flying Club, Nevada Co.  
Airpark, Grass Valley. Displays, swap meet, barbeque,  
model demos, DA clinic. 916+273-3374.
- July 11-12 - Santa Paula Airshow.  
July 11-12 - Redding Air Show. Blue Angels will perform.  
July 17-19 - 18th Annual Northwest EAA Fly-In, Arlington, Washington  
Airport. Forums, workshops, exhibits, Fly-market,  
aircraft judging & awards. Al Burgemeister, 206+631-  
9194.
- July 25-26 - NAS Moffett, Moffett Field.  
Jul 31-Aug 7 - OSHKOSH!!! 35th Annual EAA Fly-In. 414+426-4800.  
Aug 14 - 16 - 16th Annual Gathering of Warbirds, Madera. Celebrating  
40th anniv. of USAF. Call AF Ass'n., 209+255-5812.
- Aug 22-23 - North Bend Air Show, North Bend, Ore.  
Aug 22-23 - Nat'l Av. Days, Oxnard. Performers, booths. 805+485-  
8833.

- Sep 4-5 - 3rd Annual End O' Summer Fly-In, Madera. Camping, displays, judging & awards. Leonard Troutman, 209+291-4196.
- Sep 4-7 - Delano Aerobatic Contest, Delano Airport.
- Sep 6 - Petaluma Air Fair.
- Sep 13 - 15th Annual Airport Day & Airshow, Paso Robles Airport.
- Sep 17-20 - 24th Annual Reno Nat'l Champ. Air Races, Stead Airport.
- Oct 10-11 - Fleet Week, San Francisco. Blue Angels will perform.
- Oct 17-18 - NAS Pt. Mugu, Oxnard. Blue Angels will perform.
- Oct 25 - Norton AFB, San Bernardino. Thunderbirds will perform.
- Nov 7 - March AFB, Riverside. Thunderbirds will perform.
- Nov 8 - Edwards AFB. Thunderbirds will perform.
- Nov 13-15 - Comanche Fly-In, Concord. Pat Rowe, 805+934-2123.

CHAPTER 393 MINI-MART

- For Sale: Glasair kit. \$10,750. Norm Alumbaugh, P.O. Box 200, Pope Valley, CA 94567. 707+965-2709. 5
- For Sale: Glasair RG. Much work done. Price negotiable. Tom Pinckard, 415+933-0280. 5
- For Sale: Rob Cook's VE. O-235L2C. 500 hours new. Minimum time to finish. Full panel/stereo, 1,000 mile range, 36 gal., electric starter. LE gear, landing light & trim. Day: 800+772-2590, Eve: 415+372-8125. 5
- Hangar Space: Half a 40' T hangar at Livermore Airport for sub-lease for 1 1/2 years at \$80/month. Call Lisle Knight, days: 415+524-8844, eves: 415+799-0600. 2
- Hangar Space: Share a Port-A-Port Exec. III. Ideal for Vari-Eze or small bi-plane. \$150/mo. Pete Wiebens, 415+933-7517. 2
- Service Offer: Precision welding (TIG), aluminum, stainless, 4130. Eric Schuldt, 1820 Baldwin Dr., Concord CA 94519, 415+827-0259 3
- Wanted: Hangar needed at Buchanan for at least a year. Call Ron Robinson, 415+283-7365, or 283-1971. 3





# WHAT FUEL OCTANE RATING MEANS



Thanks to Chapter 170, San Luis Obispo.

5.

Octane and performance numbers designate the antiknock value of the fuel mixture in an engine cylinder. Aircraft engines of high power output have been made possible principally as a result of blending to produce fuels of high octane ratings. The use of such fuels has permitted increases in compression ratio and manifold pressure, resulting in improved engine power and efficiency. However, even the high-octane fuels will detonate under severe operating conditions and when certain engine controls are improperly operated.

Antiknock qualities of aviation fuel are designated by grades. The higher the grade, the more compression the fuel can stand without detonating. For fuels that have two numbers, the first number indicates the lean-mixture rating and the second the rich-mixture rating. Thus, grade 100/130 fuel has a lean-mixture rating of 100 and a rich-mixture rating of 130. Two different scales are used to designate fuel grade. For fuels below grade 100, octane numbers are used to designate grade. The octane number system is based on a comparison of any fuel with mixtures of iso-octane and normal heptane. The octane number of a fuel is the percentage of iso-octane in the mixture that duplicates the knock characteristics of the particular fuel being rated. Thus, grade 91 fuel has the same knock characteristics as a blend of 91 percent iso-octane and 9 percent normal heptane.

With the advent of fuels having antiknock characteristics superior to iso-octane, another scale was adopted to designate the grade of fuels above the 100-octane number. This scale represents the performance rating of the fuel—its knock-free power available as compared with that available with pure iso-octane. It is arbitrarily assumed that 100 percent power is obtained from iso-octane alone. An engine that has a knock-limited horsepower of 1,000 with 100-octane fuel will have a knock-limited horsepower of 1.3 times as much (1,300 horsepower) with 130 performance number fuel.

The grade of an aviation gasoline is no indication of its fire hazard. Grade 91/96 gasoline is as easy to ignite as grade 115/145 and explodes with as much force. The grade indicates only the gasoline's performance in the aircraft's engine.

A convenient means of improving the antiknock characteristics of a fuel is to add a knock inhibitor. Such a fluid must have a minimum of corrosive or other undesirable qualities, and probably the best available inhibitor in general use at present is TEL (tetraethyl lead). The few difficulties encountered because of the corrosion tendencies of ethylized gasoline are insignificant when compared with the results obtained from the high antiknock value of the fuel. For most aviation fuels the addition of more than 6 ml. per gallon is not permitted. Amounts in excess of this have little effect on the antiknock value, but increase corrosion and spark plug trouble.

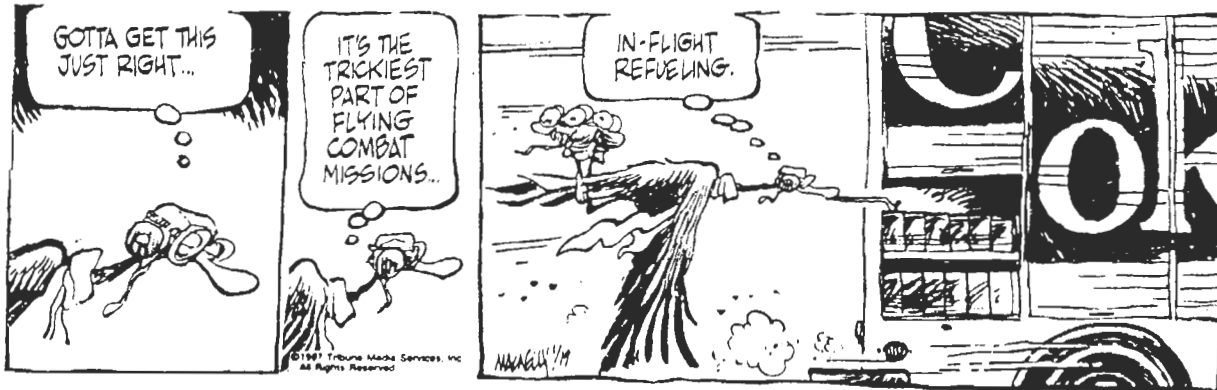


So, you think you are pretty good on the subject of airspace? Well, here is your chance to find out. Be careful, some of the questions are not as obvious as they appear. A San Francisco sectional will help. The answers are on the last page of this newsletter.

1. You are approaching the Sacramento Executive Airport and call the tower five miles south. The tower is very busy and does not answer you right away. Since you called the tower you may proceed into the Airport Traffic Area. True or False?
2. You are talking to approach control and they have given you a heading and altitude of 2,500 feet to fly. Being a careful pilot, you notice that at this altitude, you will be flying right through the Sacramento Metro Airport Traffic Area (ATA). Even though you are talking to approach, you should call Metro tower to make sure you have been cleared through the ATA. True or False?
3. You have called approach control before entering the Sacramento ARSA. Approach is very busy and instructs you to remain clear of the ARSA. Since FAR 91.88(c) states that you must only communicate with approach prior to entering, you can continue into the ARSA. True or False?
4. You are approaching Chico Airport, have communicated with the tower and have received landing instructions. Even so, the tower is not separating you from other traffic, only providing an aircraft sequencing service. True or False?
5. You are on the ground at Marysville and wish to fly to Vanderford Ranch which lies 7 miles west of and outside of the Marysville control zone. The weather in the entire area is 900 overcast with a visibility of two miles. You receive a special VFR clearance at Marysville. This means you can fly from Marysville to Vanderford Ranch as long as you maintain the special VFR minimums of remaining clear of clouds and one mile visibility. True or False?
6. You are talking to approach and receive the following advisory: "N555GB, traffic 12 o'clock, one mile westbound." While the traffic may be at 12 o'clock, it may also be quite a bit to the left or right of the dead ahead position because the controller cannot tell from radar what your heading is. True or False?
7. You are at the Sacramento Executive Airport, and the ceiling is 800 feet. You request and receive a special VFR clearance northbound which will put you over the city below 1,000 feet. Even though you received the clearance from ATC, you still may not legally fly over the city. True or False?
8. You are flying to Palo Alto (just south of SFO). You have called Bay Approach because you want to fly through the Terminal Control Area (TCA). The controller has replied to your call and given you a transponder code to squawk. You may now enter the TCA. True or False?

The above Quiz came from a recent GENERAL AVIATION PILOT NEWSLETTER put out by the FAA. Notice how concerned they're becoming about airspace?

## Shoe



## ANSWERS TO AIRSPACE QUIZ

1. FALSE. You should NOT enter an Airport Traffic Area unless you have established communications with the tower. Even though you called, if the controller has not replied to you using your call sign, you have no way of knowing if he or she heard you, and therefore, communication was not established.
2. FALSE. If you have been assigned a course and heading/altitude to fly by an approach control facility or a center, and you are maintaining radio contact with the controlling facility, you do not have to worry about having to communicate with anyone else. Approach control or center will do all the necessary coordinating with other Air Traffic Control facilities as well as the military if that should be necessary.
3. FALSE. While it is true that FAR 91.88(d) requires only that you communicate with ATC before you enter an ARSA, FAR 91.75(b) states that, except in an emergency, no person may operate an aircraft contrary to an ATC instruction. Thus if Approach instructs you to remain clear of an ARSA, be sure to do so.
4. TRUE. A control tower does sequence aircraft in the traffic pattern but does not provide the type of separation, i.e., distance and altitude, that would be provided by Approach Control for aircraft flying IFR or within a TCA.
5. FALSE. A special VFR clearance is good only while you are within the Control Zone (CZ), for which the clearance was issued. As soon as you leave the Control Zone, you will have to maintain cloud clearance and visibility requirements outlined in FAR 91.105(a). In this case, having departed the CZ, you will be flying in a magenta colored area of the chart. This means, of course, that controlled airspace begins at 700 feet AGL. You will, therefore, have to maintain a distance of 500 feet below the clouds and a visibility of at least 3 miles if you fly above 700 feet AGL once you leave the Marysville CZ.
6. TRUE. Radar shows the controller your track not your heading. For example, given a strong wind from the west, your track could be 360 but your heading might be 330 to correct for the wind.
7. TRUE. The receipt of a special VFR clearance does not waive compliance with FAR's. FAR 91.79(b) states that an aircraft must maintain at least 1,000 feet over congested areas.
8. FALSE. It is required that you RECEIVE A CLEARANCE before you enter a TCA as opposed to an ARSA where the only requirement is that you communicate with ATC prior to entering the ARSA.

Both the primary aircraft program and the recreational pilot's program are "dormant in Washington", but the FAA's enforcement program is at a record high in the number of action and they are asking for more personnel. Much of the enforcement activity seem to result from Cerritos, Salt Lake City, etc. Mind your manners around those TCAs and related airspace.

If you haven't read the April *Homebuilder's Corner* there is some interesting information about Mode C and Mode S transponders - worthwhile reading. And don't forget, L.A., San Francisco, San Diego and Las Vegas will require *Mode C* on December 1, 1987.

EXPERIMENTAL AIRCRAFT ASSOCIATION  
CHAPTER #393  
P.O. BOX 2269  
WALNUT CREEK, CA 94595



LARRY K. LAUGHLIN  
3495 SAVAGE AVE.  
PINOLE, CA 94564