

# The Cleco

Official Publication of the Experimental Aircraft Association  
EAA Chapter #393 POBox 272725 Concord, CA 94527-2725

SEPTEMBER 1998

## CHAPTER MEETING

The next meeting is on Wednesday, September 23, 1998 at 7:30 P.M. The speaker will be Ron Reuter Director of the Western Aero-Space Museum, formerly located at OAK, now at Alameda NAS.

## ANOTHER SET OF BROKEN WINGS

We sadly report the death of Duane Duis on August 20. Duane had been a member of Chapter #393 since the very first meeting 35 years ago, and is well remembered for his humor at Chapter meetings and at the Christmas parties. Duane constantly urged us to get a *real* airplane, one that was *real fast*, a Luscombe! Duane sold his Luscombe and his hangar on the Northwest side a few months ago, after he flew to and participated in a Golden West work party at Castle Field last November. Some of us knew that Duane's condition was terminal, but he wanted no publicity of that fact. He chose to die at his home. Toward the end, Duane received Hospice Care implemented by two "saints," John Allen and Bob Whitworth together with some hired help. Chapter #393 made a contribution to Hospice in Duane's memory. Many members of Chapter #393 attended his memorial service on Sunday, August 30, 1998, including Ron Robinson, Louis Goodell, Pete Wiebens, Bob Decker, Jim Lewis, Ray Nilson, Fred Egli, Don Baldwin, Doug Page, Tony Tiritilli and Ken & Linda McKenzie. Their

wives accompanied some members. Lyle Powell spoke movingly and appropriately, on behalf of the Chapter.

Duane was age 74, a native of North Dakota and a graduate of the University of North Dakota. He served in the South Pacific in WWII. His first plane restoration was a PT 22 which he flew to Oshkosh. He subsequently improved three Luscombes. He was a jokester to the end. He demanded and got a kiss each day from his pretty Hospice care person, Cindy. When somebody suggested to him that faith might cure his cancer, he spread eagled on his bed and said: "I believe... I believe." He said that he wanted his headstone to recite only: "I told you I was sick."

**Special Thanks and accolades:** Ken and Linda McKenzie and Tracy Peters have been working long hours and days on Golden West. Ken is Treasurer and Tracy is in charge of all communications, FAA, radio. Telephone etc.

## GOLDEN WEST Activities Schedule, and Volunteer Opportunities

See the attached pages. For **Arrival and Departure Procedures** go to the Golden West web site at <http://www.gwfly-in.org>. There are nine pages of special instructions which were too lengthy to include in the Cleco. If you do not have access to the Internet, call Doug Page at 943-1581 for a copy.

**CHAPTER MEETING MINUTES FOR AUGUST 26, 1998:**

President Ron reported on the deaths of Charles Woodson and Duane Duis.

Duane Allen reported the death of a Santa Rosa EAA member, and Cardinal pilot, Steve Conners, who perished flying back from Oshkosh.

President Ron asked the visitors to introduce themselves: Gary Moore, Warren Heckman, Don Arantz, and Ed Mogus. (Spelling of names may not be correct. They got away before I could check.)

The minutes for the June meeting were approved.

The speakers were Arcele Garrido and German Ossa, of the newly established Diablo Instrument Services Inc. located at 1717 Solano Way, Suite 9 in Concord. Phone 689-7900. Their native land was Chile. Arcele has had 36 years of experience on all kinds of planes. They gave an interesting presentation of what they could do for our instruments and avionics. If you hear a noise in any of your instruments containing a gyroscope, it means that one or more bearings are defective. They rotate at 24000 rpm. Bearings fail because of dirt which gets in due to failure to clean or replace the in line filters. Bearings are relatively cheap, but the labor cost is such that they replace all bearings if one is defective. They said that we could stop in any time for free consultation and information at their shop. They cannot work on instruments anyplace but their shop, but they seemed willing to come to our planes for a purpose of diagnosis.

Vice President Scott had gasoline awards for flying Young Eagles made available by Navajo and Chevron and presented them to Bob Decker, Phil Jenkins, Tim Glenn, and Tony Tiritilli. Scott also had a sample emergency kit from Gray's Sports in Cotati. (See the full page following) Rations, an emergency strobe light, and a survival blanket could be very nice to have in your plane. Ken McKenzie, who is Treasurer of Golden West, reported that contracts had been signed for

showers, tents, food, porta-potties and many other items. There will be 60-90 tent vendors, RV camping, tent camping, big USO band music Saturday night, 6 forum tents, and 3 workshop tents. The FAA will staff the tower. (See frequencies and Notams in special box.) There will be shuttles to Merced, Atwater Modesto, Turlock, and Los Banos for those who find accomodations there. Funding for the event is healthy, but not abundant. Ken could use more loans. The entry fee will be \$10 per day for the general public and \$8 per day for EAA members. Sandy Harris is chairperson of volunteers. Check the Golden West web site at <http://www.gwfly-in.org>

V.P. Scott read the congratulatory letter from EAA about Young Eagles participation.

Treasurer's Report: Louie Goodell reported that there was \$1331.00 in the checking account and \$3043.27 in the savings account.

Old Business: None

New Business: Chris Kenyon reported that at last year's Christmas party, some individuals reserved many tables and then were nowhere to be found. Chris warned that he would disregard the reservation and sit down unless the person reserving was there to enforce his claim. (Chris is one tough guy, so look out!)

Duane Allen said that the Chapter 62 Christmas party was going to be a big deal and would feature Paul Poberenzy as guest. 500 people are expected and other chapter members are welcome.

Fred Egli reported that his newly completed Lancair IV was very stable and a delight to fly to and from OSH. Fred reported that there were 20 Lancair IVP's there, including one that had flown in from Australia via Pago Pago, Hilo, and Redmond Oregon. On the way home, Fred's flight time from Casper Wyoming to CCR was 3 hours 40 minutes, flying at 12,500. Fred said that he could probably fly from CCR to St. Paul Minnesota without refueling if he wanted to. He also reported that there was a picture of our famous members, Scott Achelis, Bob Belshe, Rick

Young and Chris Kenyon on the wall of the terminal building in Worthington, Minnesota.

Lou Ellis reported that the wings on his L-2 were finished, the engine was mounted. He is working with Randy Alley.

Al Humbert's project is working on an airport committee for his gated skypark near Cottonwood, California.

Rick Lambert is working on his fiberglass amphibian.

James Miller's project is a RANS 12 and he is a student pilot.

Don Baldwin drove to and from OSH with 2 other guys.

Tim Glenn has been flying his Kitfox Series 5 for one year and has 135 hours.

Keith Martz reported that a Bonanza took 6 feet off the wing of his Comache while it was parked at Truckee. It is being quickly repaired by a mechanic from Lamson.

Bruce Milan is waiting for a LyCon engine for his Questair Venture.

Jack McKenzie bought plans for a 67% Jenny at OSH which he plans to build at home.

Charles Miglia continues his work on an Avid Magnum.

Bill Boydston has moved to a 2 acre ranch in Oakley, and recently flew to the Garlic Festival where some 99 ladies shuttled him around.

Lyle Powell flew his Glasair III to Arlington, and ferried to Victoria while there. He had to scud run to Olympia, assisted by his GPS, on the way home to avoid the SEATAC airspace.

Will Price is thinking of putting in a new 11 inch LCD display in place of one of his CRT's in his Lancair 360.

Pete Wiebens has 565 hours on his Glasair III.

Jeff Harts, a new member, has a 1940 Aeronca for sale.

Gary Moore is in the market for a plane such as Cessna 172.

Bruce Seguire is making a completely new larger cowl for his Swift to accommodate his new engine.

Dick Rihn is making the fiberglass cowl for his One Design. Dick flew a DR-109 to OSH from

Southern California, but got stuck in a Kansas motel for 2 nights enroute because of the weather.

Bob Belshe, happily flying his more highly powered Lancair 235, recently flew to the Willets Fly-In and won a trophy. Congratulations, Bob.

Harry Heckman just completed the annual on his Lancair 290 and reports that everything is now working flawlessly. Harry's brother, Warren, visited us after flying with Harry for the first time. Warren is a member of a radio controlled model flying club at Half Moon Bay.

Tracy Peters has devoted his life to service to the Golden West Fly-In and has done no work on his RV-6 since May.

Chris Kenyon now has 320 hours on his RV-6 and recently flew to Lamson. He reported that Rick Young recently sold his RV-6 and that both of Rick's Harmon Rockets were at OSH. Rick won an award there.

J.R. Gibb says his daughter has bought a landing strip in Nevada.

Duane Allen, home on a brief respite from hurricane exploring for NASA, has 255 hours on the Chevron engine in his Cardinal.

Ken McKenzie had a personal conversation with Tom Poberenzy on the flight line at OSH.

Ed Perez reports he has made little progress on his plans built Vision.

Scott Achelis has 240 hours on his RV-6A and installed new tires. He has done no flying for 3 weeks and is busy building spec houses.

Doug Page reported that the flying date for his RV-6A may be around October 1, (or maybe November 1.

Ron Robinson has 600 hours on his Glasair IRG, flew to Arlington, and flew to Lamson on the most recent fly-out.

#### **BOARD MEETING:**

We held a Board Meeting at The Hangar on September 10. We talked about a new location for the Christmas party, future programs, and how to increase the level of enthusiasm in #393. We discussed obtaining our own meeting hall, our own hangar, and augmenting our photo rogues' gallery.

Louie reported that we had \$3043.17 in savings and \$1334.44 in checking.

#### CALENDAR

September 17-23 Reno Air Races  
September 23 Regular #393 Chapter Meeting  
September 25-27 Golden West Flyin, Castle Field  
October 2-4 Redding Fly-In and Tractor Pull  
October 5 Antique Aircraft Display, Frazier Lake Airpark  
October 17-18 Edwards Air Force Base Open House  
805-277-5669

**Dec 6 Chapter 393 Annual Christmas party NOT at Petar's.** (Petar's cancelled our reservation.) It WILL be at the Sheraton Hotel at Buchanan Field. Note the change of date.

#### REQUEST FOR WEB SITE'S OF INTEREST TO BUILDERS AND FLYERS

The Board would still like to compile a list of interesting websites. All of you surfers: please submit your favorite websites.

These were forwarded by **Duane Allen:**  
The internet service provider I use lists these five weather-related pages, some with many, many more links.

1. California Weather Jumpstation  
[www.nimbus.org/jumpstation/california.html](http://www.nimbus.org/jumpstation/california.html)
2. International Weather Links (weather links from around the world)  
<http://sweb.srmc.com/srmc/weather.html>
3. WeatherNet4International Weather Forecast and Satellite Images  
<http://wxnet4.nbc4.com/worldfcst.html>
4. National Weather Service  
<http://www.nws.noaa.gov/>

5. Paul's San Francisco Bay Area Weather Page  
<http://www.wco.com/~paulg/weather.html>

#### CLASSIFIED ADVERTISING

##### Hanger for Rent/Share

Buchanan Field, East Side. EAA member preferred. Work bench, refrigerator, extra lights, extra electrical outlets plus 220. Good builder's hangar. Brad Poling 925-827-3528

For Sale Lycoming IO360A1B6D (200hp)  
1500TTSN 150SMOH. \$15,000 or best offer.  
Hartzell Aerobatic prop HCC2YR-4C/FC7666A-2  
zero since overhaul.\$3000 obo.  
Russ Ward 408-864-7824 (w) 650-344-2318 (h)

Wanted to buy Jacobs 755 engines or parts, Ham Standard 2B20 prop. Russ Ward (408) 864-7824

For Sale: 2 new 3-way fuel selector valves ("Imperial"). Valves have 1/4" female pipe thread on both sides. 1/2 price. Approximately \$35 each.  
Bruce Milan 925-254-4780

For Sale or Rent or Use:  
Precision jig table 13 feet long, 2 feet wide.  
Totally flat surface of 1" thick aluminum supported by 8" channel steel beams. Has screw bolts for exact water leveling. Also has rollers and jacking system to raise to an additional height of 2 feet. Bruce Milam 925-254-4780

#### NEWSLETTER SUBMISSIONS

Submissions may be **e-mailed**, hand written, typed, or on any IBM diskette (in ASCII or MS Word). The deadline for submissions to the editor is the 14th of every month (newsletter is produced and mailed by the 17th). The editor's address is:  
400 Arbol Via Walnut Creek CA 94598  
Telephone: 925- 943-1581  
E-Mail: [dougpage@earthlink.net](mailto:dougpage@earthlink.net)  
Fax # 925-943-2338

# TECHNICAL TIPS

## CYLINDER DIFFERENTIAL COMPRESSION CHECK

Over the years a compression check has proven to be a valuable inspection tool providing it is done properly and with equipment that is both accurate and clean. On many engines it is now a regular part of the 100 hour inspection and/or annual.

The differential pressure tester is designed to check the compression of aircraft engines by measuring the leakage through the cylinders caused by worn or damaged components. The operation of the compression tester is based on the principle that, for any given airflow through a fixed orifice, a constant pressure drop across the orifice will result.

Unfortunately there have been cases when mechanics have made honest errors or the equipment was faulty and cylinders were removed needlessly.

To help you make certain the compression check is done accurately, we submit the following information:

The compression equipment must be kept clean and checked periodically for accuracy as follows: With the plug adapter disconnected, set the regulator gauge at 80 psi. The cylinder pressure gauge must also indicate 80 psi. If there is a slight difference, this should be noted before performing the compression check.

As the regulated air pressure is applied to one side of the restrictor orifice with the plug adapter disconnected, there will be no leakage on the other side of the orifice and both pressure gauges will read the same. However, when the plug adapter is connected and leakage through the cylinder increases, the cylinder pressure gauge will record a proportionally lower reading.

**PERFORMING THE CHECK:** The following procedures are listed to outline the principles involved.

**CAUTION:** Magnetos and fuel mixture must be shut off prior to test to make certain engine cannot accidentally fire.

- (a) Perform the compression test as soon as possible after the engine is shut down to ensure that the piston rings, cylinder walls, and other engine parts are well lubricated. Oil and cylinder head temperatures should be in green arc.
- (b) Remove the most accessible spark plug from each cylinder. Also remove the plug wire from the opposite spark plug on the cylinder being tested.
- (c) With the plug adapter disconnected, apply an external source of clean air (approximately 100 to 120 psi) to tester.
- (d) Adjust the pressure regulator to obtain a reading of 80 psi on the regulator pressure gauge. At this time, the cylinder pressure gauge should also register 80 psi.
- (e) Install plug adapter in the spark plug bushing.
- (f) Turn the crankshaft by hand in the direction of rotation until the piston (in the cylinder being checked) is coming up on its compression stroke.
- (g) **CAUTION:** Care must be exercised before connecting the plug adapter since sufficient air pressure will be built up in the cylinder to cause it to rotate the crankshaft if the piston is not at Top Dead Center (TDC). It is required that someone hold the propeller during check to prevent possible rotation.
- (h) Connect the tester to the plug adapter and rotate the engine against this pressure until the piston reaches TDC. Reaching TDC is indicated by a flat spot or sudden decrease in force required to turn the crankshaft. If the crankshaft is rotated too far, back up at least one-half revolution and start over again to eliminate the effect of backlash in the valve operating mechanism and to keep piston rings seated on the lower ring lands. This is critical because the slightest movement breaks this piston ring sealing and allows the pressure to drop.

# TECHNICAL TIPS

## CYLINDER DIFFERENTIAL COMPRESSION CHECK (continued)

(i) Check the regulated pressure and adjust to 80 psi.

(j) Observe the pressure indication on the cylinder pressure gauge. The difference between this pressure and the pressure shown by the regulator pressure gauge is the amount of leakage through the cylinder. A loss in excess of 25 percent of the input air pressure is cause to suspect the cylinder of being defective. However, recheck the readings after operating the engine for at least 3 minutes to allow for sealing of the rings with oil.

NOTE: Do not pull cylinders indiscriminately on the basis of one reading.

(k) The source of air leakage can be determined by listening for the sound of flowing air at the intake, exhaust, and crankcase vent.

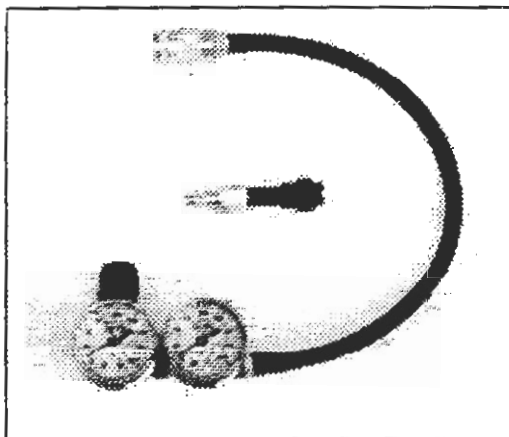
1. Leakage at exhaust signifies bad exhaust valve or foreign material under the valve face.
2. Leakage at intake signifies bad intake valve or foreign material under the valve face.
3. Leakage at the crankcase vent signifies broken, stuck, or worn piston rings.

(l) If leakage is still occurring after a recheck, it may be possible to correct a low reading by staking the valves. This is accomplished by placing a fiber drift punch on the rocker arm directly over the valve stem and tapping the drift several times with a hammer to dislodge any foreign material between the valve face and seat. NOTE: When correcting a low reading in this manner, rotate the propeller so the piston will not be at TDC. This is necessary to prevent the valve from striking the top of the piston in some engines. Rotate the engine before rechecking compression to reseal the valves in the normal manner.

(m) Repeat above steps for remaining cylinders.

(n) Record regulated and cylinder pressure in the engine log book (example 80/65) for each cylinder. A gradual deterioration of charted compression taken during routine maintenance checks would be a sound basis for further investigation.

## COMPRESSION CHECKER



MANUFACTURED BY:

This differential cylinder pressure tester permits you to quickly locate worn or cracked rings, a defective intake or exhaust valve, scored or cracked cylinders, leaky head gaskets, worn or stripped spark plug bushings, etc. It eliminates all guess work by allowing you to locate the exact location and cause of your engine's loss of efficiency.

The compact unit consists of: dual gauges, hose, regulator, connections, quick disconnect, and 18mm plug adaptor.

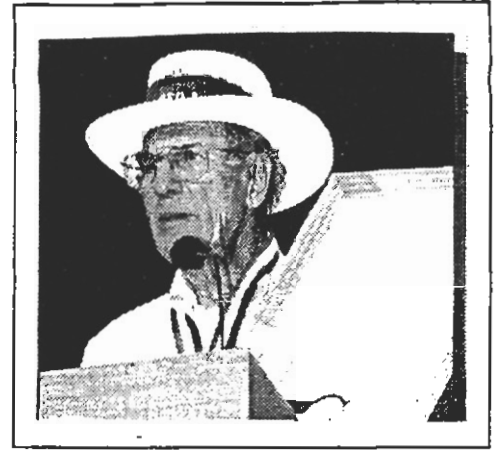
Complies with tech specs FAA AC 43.13.1A, Avco Lycoming Flyer, and Continental SB M73-19.

P/N 7630 \$49.50

Aviation Products, Inc 114 Bryant St. Ojai, CA 93023 ph/fax (805)646-6042

# EAA Chapter 62 Annual Holiday Banquet Thursday, December 3, 1998

Happy Hour: 6:30 p.m.                      Dinner: 7:30 p.m.  
Napredak Club  
770 Montague Expressway, San Jose



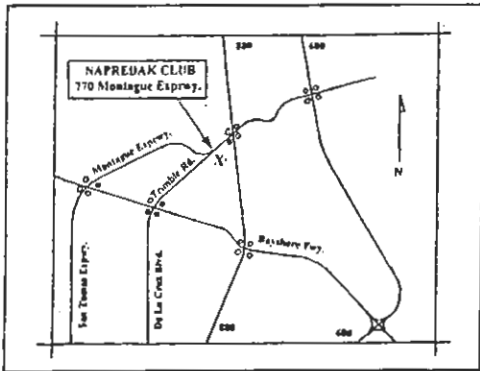
*Honored Guests, Paul & Audrey Poberezny*

EAA Chapter 62 is blessed by location, location, location! *Silicon Valley* draws talented people from all over the earth and from all corners of the United States. Some of it rubs off on EAA Chapter 62. We can be grateful for the talent, but some of us are *turkeys*; however, it's fun to be among *eagles*, all the same.

Looking back through the years since EAA Chapter 62 first began, May 3rd, 1959, we see good and great names and photos that reflect healthy, steady growth. Paul was our honored guest in January 1966 and now we look forward to Paul and Audrey as our guests, December 3rd, 1998!

### BANQUEST TICKET SALES

1. **Chapter 62 members and their guests:** ticket sales start now!
2. **Non-Chapter 62 EAAers and guests:** ticket sales will be accepted now, date of receipt noted, then at the conclusion of the Chapter 62 meeting, Nov. 5th. will be honored on a first come-first served basis. (i.e., paid receipts according to date received).
3. **Cut-off date for ticket sales: November 19, 1998 (Maximum: 400)**  
*(Chapter 62 members: make reservations by November 5th!)*
4. **Cancellations:** will be honored via telephone. or e-mail. through Thursday, November 19th and applied to pending reservation requests.
5. **All tickets will be delivered at the Banquet receiving desk.**



(street map of the area)

Make this a great, smoothly coordinated event by getting your reservations early. This detail is *very important* . . . **YOUR** help is needed.  
(detach along dotted line)

### 1998 ANNUAL EAA CHAPTER 62 HOLIDAY BANQUET RESERVATION

(please note: non-Chapter 62 EAAer requests will be honored as of 5 Nov. according to date received)

Name: \_\_\_\_\_ Address: \_\_\_\_\_ Tel: ( ) \_\_\_\_\_

Number of Roast Beef Dinners	_____	\$35.00 each	Total \$_____
Number of Roast Turkey Dinners	_____	\$35.00 each	Total \$_____
Number of Fillet of Sole Dinners	_____	\$35.00 each	Total \$_____

VISA/Master Charge OK _____	Expiration Date _____
(circle one)	(credit card number)
_____	
signature	

Your dinner tickets will be presented at the door.

Any questions? Phil Duzet (408) 559-7606 days  
(408) 395-5903 evenings  
Harry Wilson (408) 685-8638

Please make checks payable to: EAA Chapter 62.

Mail to: Harry Wilson, 328 Treasure Island Drive, Rio Del Mar, CA 95003 (tel: 408-685-8638)

**Golden West Aviation Association, Inc.**  
 Fly-In Functional Chart  
 Dick Martin (916)939-1255  
 Fly-In Chairman

*Where do you want to go (volunteer) today? **Let's talk.***

**Schedule of Planning Meetings and Work Parties**

<u>Air Operations</u>	<u>Ground Operations</u>	<u>Convention Services</u>	<u>Facilities</u>	<u>Activities</u>	<u>Administration &amp; Finance</u>	<u>Marketing</u>
Dick Martin (916)939-1255	Bob O'Hara	Kay Morgan (530)677-4503	Dean Edson (530)626-8265	Bill George (530)642-8063	Ken McKenzie (925)283-3119	Steve Gregory (925)460-420
Arrivals Departures	Aircraft Parking	Auto Parking	Utilities	Education	Sales	Sponsors
Special Category	Aircraft Registration	Campgrounds	Sanitation	Judging & Awards	Event Insurance	Advertisin
Fly-bys	Aircraft Services	Transportation	Signs	Non-Aviation Programs	Banking	Radio Promo
Airshow		Emergency Services	Security	Hospitality	Vendor Services	TV Promoti
		Housing	Vendor Spaces	Family Activities	Records & Date Entry	Civic Group
		Setup & Tear Down	Traffic Control		Event Finance Report	
		Volunteer Headquarters	Communications			
		Handicap Services	Facility Services & Repair			

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Join Us for Fly-In Activities

- Friday September 25th
- Daybreak Balloon Launch (7:00 A.M.)
  - Forum Tents #1 - #5 (8:30 A.M. - 2:30 P.M.)
  - Workshop Tents #1 - #3 (8:30 A.M. - 2:30 P.M.)
  - Youth Education Tent
  - Ultralight Operations and Activities
  - Fly Mart (Flea Market)
  - Airplane/Helicopter Rides
  - Airshow and Fly-Bys (2:30 P.M.)
  - Friday Night Welcome Dinner
- Saturday September 26th
- Daybreak Balloon Launch (7:00 A.M.)
  - Forum Tents #1 - #5 (8:30 A.M. - 2:30 P.M.)
  - Workshop Tents #1 - #3 (8:30 A.M. - 2:30 P.M.)
  - Youth Education Tent
  - Airplane/Helicopter Rides
  - Airshow and Fly-Bys (2:30 P.M.)
  - Registration Deadline for Judging Awards (3:00 P.M.)
  - Dinner/Dance - Comedian Intro and Swing Band
  - Daybreak Balloon Launch (7:00 A.M.)
- Sunday September 27th
- Awards Breakfast
  - Forum Tents #1 - #5 (8:30 AM - 1:15 PM)
  - Workshop Tents #1 - #3 (8:30 AM - 1:15 PM)
  - Youth Education Tent
  - Ultralight Operations
  - Airplane/Helicopter Rides
  - Airshow and Fly-bys (2:30 P.M.)

Home / Fly-In Events/ Off-Field Activities/ Exhibitors/ Fly Mart/ Getting to Castle/ Lodging/Camping/ Admissions/ Contact Us/ Other Fly-Ins / City of Atwater / Castle Air Museum

THE EXPERIMENTAL AIRCRAFT ASSOCIATION  
CHAPTER #393 NEWSLETTER, SEPTEMBER, 1998

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