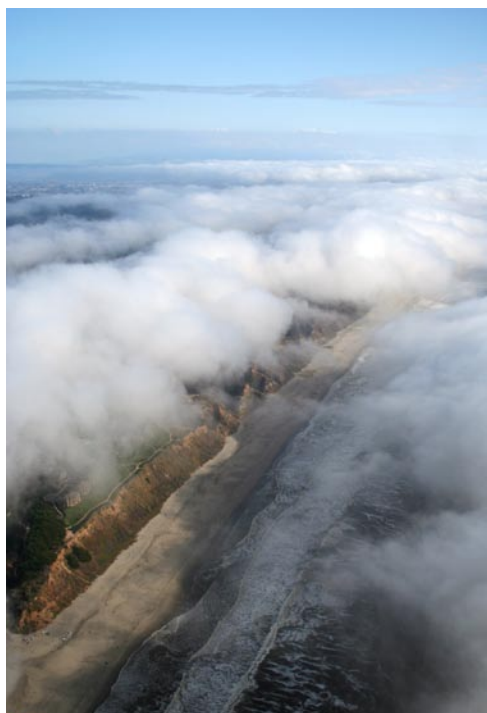


## Aerial Photography by Brian Moffet

Spring is coming fast, and with it, flying weather is here again. The weather we have now, though — cold, crisp, and occasionally wet — is extremely good for taking photographs from your airplane. Shooting aerial photographs can be a very simple task, with a



standard point and shoot film camera or small digital camera. The idea is simple: point the camera at something on the ground, and take a beautiful photograph. However, by taking some time to plan ahead, you will be better prepared for that lucky accident.

The best scenario for taking

photographs from the air includes:

- 1) a clear day with little haze or moisture
- 2) fast shutter speeds to keep the subject still
- 3) little or nothing between you and the subject

Looking at these individually, having the cold air helps keep moisture out of the atmosphere. Less moisture will help getting clear photographs. A polarizer filter also helps cut down the effect haze has on photographs. A polarizer works by removing light that is aligned by reflecting off of surfaces, water, or mist. You need to adjust the polarizer by looking through it and rotating until you clear up the areas you want. By using a polarizer, you can darken the skies and keep the landscape bright, or you can cut down on some of the glare that haze produces. Even in winter, I shoot photographs through a polarizer when possible.

Unlike taking photographs of airplanes, where you

want to keep some motion in the prop, usually aerial photographs are shot with high shutter speeds. If your camera has an aperture priority setting, use this setting and set the aperture to as low as you can (as much light as you can). This guarantees that the shutter speed is as high as it can possibly be. Some lenses work better at a smaller aperture than full open; if you have one of these and you know about it, choose a good aperture.

If you can shoot out an open window or door, do that rather than through a window. Some aircraft windows will interfere with the polarizer, causing rainbow interference patterns. If you are using a polarizer, look through it and through the window to see if you can see rainbow or color patterns. If not, you can use the polarizer through the window, but you may see some reflected images in the window. Using a black cloth to cover your head and camera might reduce reflections in the window.

Finally, someone has to fly the airplane. Safety is more important than that great shot.

In my case, I use a Canon Digital Rebel XT, a 28 – 105 mm zoom lens, a polarizer to help cut reflections, and I open the pilot-side window in my airplane.

I do shoot photographs while I am alone flying, but only after clearing the area. I also maintain a safe altitude above the ground to prevent problems.





**President's Corner**

Well it seems we were just having fun at the Christmas Party, and here we are looking at the February meeting.

It is a time to stretch, relax, and take a breather from a busy, busy chapter schedule. After last year we deserve

a little time to do our own thing for a while. Things will begin to pop in March as Neil Brooks' model building program gets underway, and then really get rolling in April as we prepare for "Day in The Sky 07". Immediately after, we host EAA's Aluminum Overcast B17, and then on to the air show and 07's Young Eagles program.

I would like to take this opportunity to thank all the members who volunteered their time, their airplanes and themselves to make all our activities of last year a great success. We will be looking forward to your help this year as well for our many activities.

We did have one chapter activity this month, and that was Airport Cleanup along Airport Blvd. On January 6th, a dozen or more members showed up, we drank coffee and ate donuts, and then cleaned up Airport Blvd. After we were through with our work, we drank more coffee, ate more donuts, and generally sat around for a while, discussing how great we were and what a good thing we had done. We may even have told a few flying stories.

Even though there is not much happening just now, chapter-wise, our members are still busy. The latest report is that Bill Randolph's airplane is up and flying again after his unfortunate off-field landing. Bob Frisbey has moved his RV-7 project to the airport for final assembly. Larry Baker and Jerry Olsen (anybody want to build an RV, see Jerry ) have moved Larry's RV-10 to the airport, and it should be flying very soon.

The February meeting, which I will not be able to attend unfortunately, will be hosting Don Houseman of Mercury Metals and feature a demonstration of the use of an English Wheel. Don is a really enthusiastic and interesting person who, if we ask nicely, might come and do a weekend class on metal forming. At the March meeting we have Mr. Dan Chauvet scheduled to present on the latest in the airport vs. Watson-

ville. After that, I'm being teased by Mr. Bill McBride, our meeting coordinator, and he says that just possibly we can get Alan Brown to come for another presentation. Sorry I will not be at the next meeting. Hope to see you all soon. In the mean time, please, Fly Safe!

Dennis



*Model Airplane Class at EAA Hangar  
courtesy Mary Doherty*

**2007 Chapter 119 Officers and Position Holders**

President	Dennis Thomas	831-479-7986
VP & Program Chairman	Jerry Olsen	
Secretary and Membership Chairman	Neil Brooks	831-338-3543
Treasurer	Mary Doherty	
Director & Hangar Boss	Jack Hill	831-426-3979
Director	John Davi	
Director	Dan White	
Director and Young Eagles Coordinator	Bob Sliter <rasliter@cruzio.com>	831-724-6904
Young Eagles Ground Instructors	Russ Moody Bill Normandin	831-475-9374 831-462-1194
Flight Advisor/ Technical Counselor	Jack Hill	831-426-3979
Fly-In and Air Show Reps	Hank Wempe Dan White	831-724-5591 831-688-9260
Chapter Webmaster	Ron Shannon rshannon@cruzcom.com	
PVAviation Academy Reps	John Davi Bob Sliter Dan White	831-688-2809 831-724-6904 831-688-9260
Newsletter Editor	Brian Moffet <editor@eaa119.org>	831-459-9294
Copy Editor	Naomi Brokaw WordsTakeWing@skyhighway.com	

## Chapter News



### EAA Chapter Minutes

MINUTES OF THE MEETING OF January 2, 2007

The meeting was called to order by President Dennis Thomas at 1930.

34 members and guests were present.

Since Dec. was not an official meeting there are no minutes for December.

Treasurer's report was given by Mary Doherty.

Old Business:

1. A proposal was made to acknowledge continuous service and membership with the EAA of 45 years or more. A motion to enable that was made by Vice President, Jerry Olsen, 2nd by Richard Thomas. Passed.
2. Jim Carter was recognized and awarded a Certificate from the EAA. Jim was a founding member of Chapter 119 in 1961.

New Business:

1. Jim Doherty presented his thoughts on the "Rolling Boneyard". This is a method to recycle aviation related items to those who can make use of donated items. All proceeds are to go to the chapter for youth activities. Motion: The chapter approve of a six-month trial period. Jim Carter, 2nd Ray Fink. Passed.
2. Airport Blvd. cleanup day of Jan 6th was announced.
3. Young Eagles report by Bob Sliter. The chapter flew 422 children in 2006. The total since the inception is 3697 children. The chapter is in the top 5% in the number of children flown in the Young Eagles program.
4. Model Airplane project report given by Neil Brooks. All in all it was a success. The attendance for the six Saturdays varied from 4 to 14. The children expressed an enthusiastic opinion on a future program for 2007. Therefore, a similar program will be held in the spring. Dates to be announce later.

5. Colin Smith discussed a Learn to Fly Seminar to be held on the 26 of Jan. at the WAEC. Hours are from 1900-2100. The cost is \$9.95 and door prizes will be awarded.
6. The 99s are having a Flying Companion seminar. The details are in the last newsletter. It will be held on Feb. 24, an all-day affair. The cost is \$40, which includes lunch.
7. April 21st is set for the Day in the Sky program. This will also be a Young Eagles Day and pilots, air-planes and volunteers are needed.
8. The EAA B-17 will be at WVI on 4/23, 4/24 & 4/25. The chapter will plan under the supervision of John Davi and Jack Hill. It is a good fund-raising event for the chapter.
9. Jim Doherty suggested we institute another Bumper Sticker program.
10. Jeff Roper discussed the upcoming Fly-In.

There was a break in the meeting, followed by a program presented by Scott Randolph. His subject was converting his RV-6 instrument panel and electrical system for installation of digital instrumentation and replacing his vacuum pump with a second alternator.

Submitted by Neil Brooks, Sec.

EAA Chapter 62 will be hosting the Young Eagle Events on the following dates in 2007:

Apr 14	Reid Hillview
May 19	South County
Jun 9	Reid Hillview
Sep 8	Palo Alto
Sep 29	Reid Hillview
Oct 20	South County

We welcome you and your members to join us this year. I look forward to meeting you.

Hillary Harper  
EAA Chapter 62  
Young Eagles Coordinator  
(650) 303-3843

## Battery Lore

by J.R. Warmkessel

Other than knowing that when the battery doesn't turn our prop it promptly ruins our fun, what do we really know about those pink hearts of our beautiful birds?

A battery is a device that stores chemical energy and makes it available in an electrical form. Most G/A aircraft that use a battery use a form of the lead-acid battery. The most popular is the dry-charged battery, better known as the wet-cell battery. This battery consists of cells that have of four main parts:

1. The positive plates made of lead dioxide (PbO<sub>2</sub>).
2. The negative plates made of pure spongy lead (Pb).
3. The solution, consisting of a mixture of sulfuric acid and water.
4. The battery body that holds the positive and negative plates apart and keeps the solution contained.

Each cell, regardless of the size, only produces 2.1 volts. Therefore to achieve a 12-volt battery, you must connect six cells in series. The amount of current that can be drawn from the cell is directly proportional to the surface area of the plates, more surface area gives the battery more amperage.

I can see your eyes starting to glaze over. I know that if you were really interested in this exciting field of battery technology you would head back to school. Therefore, I'm going to focus on the parts that can really help an aircraft owner.

- We know that if the solution level of the battery is low, or if we have allowed the battery to become discharged, causing corrosion on the plates, the surface area of the each plate is reduced, thereby reducing the amperage that cell can produce.
- We know that sulfuric acid is a really nasty acid. It will hurt you.
- We know that when a battery is being charged, the positive plate produces oxygen and the negative plate produces hydrogen because of the chemical reactions. For this reason, having a spark, fire, or other ignition source nearby is extremely dangerous.
- We know that chemical reactions do not happen quickly when those chemicals are cold. A battery will not deliver a large current when it is cold. One of the by-products of the chemical reaction when charging or discharging a battery is heat. Drawing a small amount of current, such as by us-



ing the landing or taxi lights that will have a side effect of warming the battery, allowing it to deliver a larger current to the starter.

- We know that when the battery is fully charged, the battery solution has more sulfuric acid in it. That solution has a freezing point of about -50° C. When the battery is discharged, the solution is mostly water with a freezing point of around 0° C. When the water in the battery freezes, it will expand, causing the cells of the battery to rupture.

Given what we know, there are some suggestions when

servicing your battery or using your plane.

- When you disconnect a battery it is very important that you first remove the NEGATIVE and then the POSITIVE, and when you reconnect a battery that you connect the POSITIVE and then the NEGATIVE. If you need to connect an external power source it is always best to use the external power receptacle if there is one. This will prevent sparking caused by accidentally grounding the positive pole to the plane (assuming a negative-grounded airplane frame).
- When servicing your battery, follow safety precautions like wearing safety glasses, gloves, and the most important: have a ready supply of clean water standing by to neutralize the acid in the event of a spill. Baking Soda will neutralize the acid, but washing with clean water is the recommended course for spills on skin.
- A more accurate way to measure the health of the battery than testing the voltage is measuring the amount of sulfuric acid in the solution. Because sulfuric acid is heavier than water, we can measure the specific gravity of the solution, knowing that a fully charged battery will have a solution of mostly sulfuric acid with a specific gravity from about 1.275 to 1.3, compared to the specific gravity of water (1.0).

For more information on servicing your airplane battery, see the manual that came with it. Some manuals are available at:

<http://gillbatteries.com/manual.cfm>

[http://www.concordebattery.com/main\\_air\\_tech.php](http://www.concordebattery.com/main_air_tech.php)

## Demurrer Denied Dan Chauvet

The attorneys for the city of Watsonville filed a demurrer to exclude the State Division of Aeronautics from the legal action WPA vs. Watsonville. The dictionary says a demurrer is an objection; and law-wise “is a pleading [by the city] in effect that even if the facts are as alleged by the opposite party [WPA and CalTrans], they do not sustain the contention based on them.” On Thursday, January 4, the judge denied the demurrer. He stated that the Division of Aeronautics would not be excluded, and indicated that what the city is planning is unsafe. That has to be considered a big plus for the Watsonville Pilots Association and others involved.



Reportedly, the city attorneys appeared to be disappointed. The question arises, will the city continue the costly action to try to ram through the bad airport land use planning contained in the new General Plan 2030 and the made-to-fit Environmental Impact Report?

The basic problem is that the cost of installing all the infrastructure, such as water, sewer, and roads, requires that a future specific plan contain at least the 2250 houses, in order to be economically feasible. A high percentage of these houses will be in “Buena Vista I” which is aligned with runway 26, the second-most-used runway (existing housing now exceeds the maximum in runway safety zones 1 through 4). This density of development is incompatible with legitimate, responsible airport land use planning. Pilots must have options if they have to make a forced landing. People should not be subjected to the risk of an aircraft crashing into their homes.

The city claims that they haven’t come up with a specific plan for Buena Vista. They deny a link between a general plan and a specific plan requiring consistency. Attorneys say that a faulty general plan paves the way for a faulty specific plan. Any specific plan following the direction of General Plan 2030 will not provide for the health, safety and welfare of the people traveling by air or those that would be on the ground. Airport supporters would be gullible and naïve to expect the

city’s future specific plan to come close to being safe and to not create a permanent noise problem. The lessons of history show that encroachment is often the demise of runways and airports and leads to more lawsuits.

The demurrer decision provides for the inclusion of the Division of Aeronautics in the effort to ensure responsible airport land use planning around Watsonville Airport. That’s good news for everybody who is interested keeping airports viable and safe.

### For Sale

**Partial Long-EZ kit, \$800.00**  
**Paid 1400.00 for kit, purchased 15 years ago.**  
**Contact: Robert Barton**  
**Carmel Valley**  
**831-659-4515**  
**rbar@netpipe.com**

**1964 C-172E 2927-TTAF, 1560-SMOH, 157-STOH, IFR, new annual, complete logs, Garmin XL300 GPS moving map, 4-place intercom, alternator upgrade, wing tip vortex generators. NEW: battery, mags, tires, new ELT battery. Cont. O-300, good compression, paint-10, interior-10 (leather), \$49,995, 831-809-6668. Lance McBride**

### For Sale:

**Garmin 296 near new in box , All updates , Yoke mount , Auto mount, All Accessories**  
**\$1,200 OBO**  
**Bill Scherer 465-1107**

Watsonville Municipal Airport  
 60 Aviation Way  
 Watsonville CA 95076

**Upcoming Topics and Events:**

<b>Date</b>	<b>Topics</b>
Feb 6, 2007 7:30 pm	EAA Chapter 119 monthly meeting. EAA Hangar, 60 Aviation Way, Watsonville Airport Don Houseman of Mercury Metals and a demonstration of the use of an English Wheel.
Feb 21, 2007	Monterey Bay Chapter 99s. 7:00 pm EAA Hangar, 60 Aviation Way, Watsonville Airport, CA
Feb 28, 2007	Watsonville Pilots Assn. 7:00 pm EAA Hangar, 60 Aviation Way, Watsonville Airport, CA
Mar 6, 2007 7:30 pm	EAA Chapter 119 monthly meeting. 60 Aviation Way, EAA Hangar, Watsonville Airport.

# Flying Companion Seminar



**What you need to know!**

Saturday, February 24, 2007

8:00am to 5:00pm

Santa Cruz County Office of Education

The Flying Companion Seminar is for non-pilots who would like to be more comfortable in the cockpit. Becoming an active participant increases the enjoyment of travel by private plane. Join us for a fun-filled day as we unravel the mystery of flight.

Advance registration is required. Donation: \$40.00 includes lunch & materials

Contact : Theresa Levandoski-Byers (831) 728-5511



Monterey Bay Chapter International Organization of Women Pilots  
[www.montereybay99s.org](http://www.montereybay99s.org)