



# THE LEADING EDGE

NEWSLETTER OF MUROC EAA CHAPTER 1000

Voted to Top Ten Newsletters, 1997, 1998 McKillop Award Competition

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September 1999

Chapter 1000 meets monthly on the third Tuesday of the month in the USAF Test Pilot School Scobee Auditorium, Edwards AFB, CA at 1700 or 5:00 PM, whichever you prefer. Any changes of meeting venue will be announced in the newsletter. Offer void where prohibited. Your mileage may vary. Open to military and civilian alike.

## This Month's Meeting:

*Project Police* Note:  
Possible Leak



## HOSING UP YOUR HOMEBUILT

**Speaker: Dale Henson**  
**Western Coupling Corporation**  
**Tuesday, 21 September 1999**  
**1700 hrs (5:00 PM Civilian Time)**  
**USAF Test Pilot School Auditorium**  
**Edwards AFB, CA**

Hi – ho friendly neighbors, Tim the Tool man will be right back to talk about the new Binford...Wait, wrong news letter...Let me see, oh right, yes, well while we *are* talking about friendly neighbors, we EAA types have one right up the street from us in Mojave. You all remember **Dale Henson** don't you? Dale runs **Western Coupling Corporation** on Mojave Airport where they fabricate all types of hoses. Dale will be our guest speaker at this month's meeting and will be talking about the proper selection, fabrication, and installation of hose assemblies for light aircraft. He will be briefing us on all of the different types of hoses, and how to determine which to use for what application. This meeting will be a real eye opener where you'll find out how to solve hose problems on your homebuilt, say in a tight engine compartment, or your factory built where you have a hose that's failing to perform its function. Dale will also show us how to install hose fittings, and some new quick disconnect hose ends. Western Coupling is glad to do small homebuilder type orders, although they do have a minimum order like many industrial suppliers. **Bob Waldmiller** had some hoses made up at Western Coupling and said they were near perfect, so you can believe they do quality work. For more information you can contact Dale at:

Western Coupling Corporation  
 Mojave Airport  
 Phone 661-824-4637  
 FAX 661-824-9242

One last thing, ever think of a hose as being a flexible hole going wherever you want it to go? Makes you think doesn't it?

So, we're looking forward to an exciting and informative evening with Dale, and as always, come on out and enjoy the schmooze time before the meeting and the gourmet dining at the BK Lounge afterwards. See you there!

- **George Gennuso**  
**Vice Kommandant and Schmooze Meister**

## Chapter 49 Old Fashioned Fly-In, Saturday 18 September at Fox Field

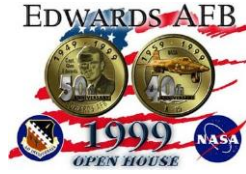


Check your calendar! You may still have time!

Get down to Fox Field on Saturday, 18 September and participate in/enjoy Chapter 49's second **Old Fashioned Fly-In**. Events will occur from 0800 to 1600 (8 AM to 4 PM if you haven't learned to read that yet). Events will include a Pancake Breakfast, Lunch, Fly-bys, Swap-a-ride, Exhibits, Young Eagles & Old Buzzards, Spot Landing Contest, and Free Raffle. The best part: No Registration Fee! Just show up and have fun!

How well do you really know what your weight and balance are? Our good friends in Chapter 49 (some of us are them) have procured some new fancy scales for weighing aircraft. On **23 October 1999** they are planning a Weight and Balance Clinic, probably at Fox. **NOTE:** This is a tentative date, and may still change. There will probably be a fee, especially if they have an FAA DAR there to sign off certified aircraft. Check with **Dick Monaghan** (661-947-6216) or **Bob Hoey** (661-948-1102) for further info.

## Edwards Open House, 9-10 October 1999



Once again, EAA Chapter 1000 has been tasked with coordinating this year's General Aviation display in Hangar 1600. As before, all aircraft are **BY INVITATION ONLY!!** So don't just fly up to Edwards and expect to be allowed to land. Come by **Ground Assault Vehicle** (e.g. car, truck, van) and be welcomed with open arms.

Further, due to the nature and scope of this year's show we are limiting invitations to those aircraft who meet the criteria below and, *whose aircrew can provide their own transportation, lodging, and meal arrangements.* This shouldn't be a problem for most Chapter 1000 members. In addition, pilots and passengers will not be allowed access to their aircraft in Hangar 1600 or the flight line in general from 2200 Saturday to 0700 Sunday morning. Arrivals will only be allowed on Friday afternoon (8 October 1999). Departures will only be allowed on Sunday afternoon (10 October 1999) after the air show. If you fly in, you're in for the duration.

Our space for aircraft is very limited, and much of it is already allocated. However, if you think you have an aircraft which meets the following criteria:

- Award winner at a major EAA Fly-In (i.e. Oshkosh AirVenture, Sun-N-Fun, Copperstate, etc) OR is unique enough that you think that we don't have one already
- Fits into one of the EAA Showplane Categories (Experimental Amateur Built, Experimental Research and Development, Antique (built in the years 1903 through 1939), Classic (built in the years 1940 through 1959), or Contemporary (built in the years 1960 through 1964))

If your aircraft fits these criteria, contact the **Kommandant** at 661-609-0942 or aldrichg@tps.edwards.af.mil and ask. The worst we can say is "No, Thank You."

**During the Open House, please come to the Chapter booth in Hangar 1600 and hang out, schmooze, and enlighten the great unwashed about our collective chosen endeavor. It's the place where the really cool folks hang out.**

## First Flight—Rodney Howes RV-6

Rod Howes started his RV-6 in Nov, 1992 at Bossier City, LA. The empennage was completed in LA. The wings were completed in California City. The remainder in Fallon NV to the first flight June 30, 1999. N6383W is multicolored primer but doesn't seem to know it is ugly. First flight from private SW Fallon, 2500 ft. was uneventful. Trims up good and goes fast. It likes to bounce on landing, but is getting better. Owner test pilot, had not flown in 10 yrs except for a one hr biannual in a

172. Engine is a new O-360 with a fixed pitch metal Sensenich. Full panel and sheepskin seats. I am now building a Kitfox II to stay busy.

(After receiving this e-mail, I was led to ask "Where'd you find a Kitfox II? They haven't been produced for years...Whazup with that **Charlie Wagner** guy? We haven't heard from him since he moved up there with you (over a year now).)

I am the third owner of Kitfox II kit. First guy didn't have time. Second guy died and I bought from the estate. Lots of pieces missing, but quite buildable. Many IV upgrades included. Charlie Wagner is still building his hangar. As you can imagine, if you know Charlie, it is absolute perfection. We have 2500 ft of paved runway available if any of you are transiting near.

Paint for the RV-6 will come when the Kitfox flies.

- **Rodney Howes**

## Last Month's Meeting

### EAA Chapter 1000

MOL Room, Test Pilot School, Edwards AFB  
1700, August 17, 1999

**George Gennuso**, Vice-Presiding

### Spaceman Schmoozin'

The assembled **Project Police** conducted an important and critical test program during schmooze time this month. **PPRR Erbman** (that's **Project Police Rabble Rouser**) produced an "**Official Astronaut® Chocolate Chip Space Cookie**" that had been procured during a recent whirlwind visit to the Air Force Museum in Dayton, Ohio. We wondered why **Project Police Astronaut (PPA) Scott Horowitz** had never brought this culinary item to the attention of the **Project Police** at large. We were soon to find out.

After presenting the test item to the assembled masses, I suspected that a general panning might be imminent. Right there on the back of the package it said in bright red letters "**NO HIGH FRUCTOSE CORN SYRUP. WHEAT FREE-DAIRY FREE-LOW FAT.**" Of course, none of these are words that send **Project Police** taste buds a-flutter.

In the end, it was decided that if Raven's Nest C<sup>3</sup>s set the standard for Chocolate Chip Cookie excellence, then Official Astronaut Chocolate Chip Space Cookies nail down the other end of the scale. None of the **PPOs** were impressed. The so-called cookie resembled a sticky, gooey granola bar, with more oats than chips. About the only high point of this experience was when our local space-connected guy **Bernie Bakken** pointed out that unlike standard C<sup>3</sup>s, this one produced no crumbs. This is a good thing in a spacecraft where crumbs don't fall to the floor but instead seek out the most critical piece of equipment and make a *kamikaze* dash toward it.

A hearty crew managed to make it into TPS in spite of the ongoing base exercise. Really, you'd think they would

deconflict their schedule with the *Project Police* before putting on a simulated terrorist attack.

Sometime around 1730 we all moved down to the MOL room for the continuation of the festivities. Our speaker needed a white-board to draw on, so we re-located our gathering.

**Guests**

**USAF Test Pilot School Class 99B** is showing a higher than usual level of coolness compared to previous classes. We came to this conclusion because three members of the class joined us for our meeting.

**Rod Todaro** is a USAF navigator who is currently building a Velocity Elite RG. "Building" is used in the loosest sense of the word here, since the TPS Staff seem to keep giving him other tasks that seem to fill his time. The aircraft is patiently awaiting further activity in a hangar at Mojave Airport.

**Eric Felt** and **Shon Williams** are flight test engineers who are not currently building but are in that critical phase of evaluating which aircraft will best satisfy their design missions.

**Program**

After a (relatively) short explanation by **Erbman** of how the MOL Room got its name, **George** introduced our speaker **Bob Archer** of **Sportcraft Antennas**.

Bob passed around several samples of his unique antennas. His antennas are designed for mounting inside composite (wood or plastic) airframe components. He showed us several drawings of antenna patterns and talked about how the airframe will affect the antenna patterns. He covered ground planes, VSWR, how his antennas are designed, and several other topics I don't claim to understand. We videotaped the meeting, so pick up the tape in the chapter library (in the TPS library) and watch it if you really want to know what went on.

Besides being happy to sell you an antenna, Bob will be happy to answer your questions at 310-316-8796. You can also find Bob's notes on the Internet at <http://www.pavionics.com>.

If you're building an aircraft, now is the time to talk to Bob and plan your antenna installation. Don't wait until you've finished building the airframe thinking you'll just scab on an antenna—that doesn't work very well.

**Adjournment**

The gathering was adjourned sometime around 1900, at which time many attendees decided to gather at the Burger King, a.k.a. **PPHFFRC (Project Police High Fat Food Replenishment Complex)**, where good times were had by all. George was taking Bob back to the airport so that he could get home, but the assemble masses soldiered on without them.

- **Erbman**, psuedo-secretary

**The Prez Sez...**

Seems like the summer has just "flown" by...pun intended...and now were moving into one of the more enjoyable flying seasons here in the desert; when temperatures are milder and the "light to moderate turbulence below 12000" admonishments aren't as common. This is also a busy time for fly-ins and other aviation events. By the time you get this, the **PPTAF** will have raided the **Golden West Fly-In** at (former) Castle AFB in the **Fightin' Skywagon**. Look for a report in the next issue of the 'Edge.

Then, of course, our brethren in **Chapter 49** will be hosting the "**Old Fashioned Fly-In**" at Fox Field on the 18th. Please be sure and turn out for that one as it promises to be a really neat, relaxed get-together with good food and lots of cool airplanes.

Next on the agenda will be **Copperstate**...and our own **Open House and Airshow** - both on Columbus Day weekend. What a dilemma! Copperstate is always a prime destination, but this year's Edwards event is celebrating the 40th anniversary of the X-15 program and the 50th anniversary of the naming of the base. Couple that with a two-day show featuring the Thunderbirds, **Sean D. Tucker**, and other major attractions, and the Phoenix show may lose out!

Speaking of the Edwards Open House...If you or someone you know were intending to display their airplane in Hangar 1600 as we have done in the past; you should check out the Chapter web site for late breaking news. Due to the size and nature of this year's show, we will be limiting our invitations to local folks and/or those that can arrange their own lodging and transportation. If you are not "connected" to the web, call one of your chapter officers for details.

Of course, even if you don't fly to Phoenix or Edwards, you are more than welcome to stop by the Chapter 1000 booth in Hangar 1600 to kibitz and schmooze with the public about EAA, Edwards, and life in the desert.

Fly Safe and Check 6!

- **Gary Aldrich**, Kommanding

**New Member**

This chapter web site of ours is an amazing thing! When the web site went operational, I put information there on how to join Chapter 1000. I didn't really expect anyone would join just from reading our web site, but then again, I've been wrong before. We've actually signed up quite a few **PPOs** that way.

This month we add another fine new **Project Police Officer** to our ranks courtesy of the Chapter 1000 web site. **Joe Lewis** and his wife **Betsy** are joining up with us, coming to us from somewhere behind the lines in Europe. Joe is a U.S. Army Officer (he didn't specify what rank) stationed somewhere in Europe. He didn't say where, but after weeks of study, the **Project Police** boffins determined that an address containing "APO AE" would indicate somewhere in Europe with a 95% confidence level.

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Further study of the telephone number, which required contracting out some of the work, indicated that the country code of "31" would point toward the Netherlands, although the city code of "45" was not listed in our reference material. This was further confirmed by a ".nl" suffix on his e-mail address. Prior to joining up with the **Project Police**, Joe was a past president of EAA Chapter 175 in Tampa FL. He owns a Cessna 182, and is currently building an RV-6. Welcome to the fold, Joe! (As an added cool benefit, Joe's *New Member Information Sheet* came printed on A4 size paper, a European standard. I had always heard of it, but this was the first piece I've actually seen.)

### Sun'n Fun 1999

or

### Doug, Gail, Gary and Russ's Excellent Adventure



*(Finally! The conclusion of our story you've all been waiting for, just in time for ~~Oshkosh~~ AirVenture...oops...we're already past that...anyway, we join our intrepid PPOs at Natchez, MS, well fed and ready for takeoff...)*

#### We Knew You Were Coming So We Did It Right...

Fueled up and ready to go, we taxied out expecting to depart on Runway 31 that we had landed on. However, the airport advisories were calling runway 36 in use. We figured that maybe the wind had changed. It turned out that we probably should have used 31. All of us have made multiple "landings" for one approach, but this time the crosswinds and the turbulence (again from the surrounding trees) were so bad that we made multiple takeoffs on a single run.

We quickly rejoined and were VFR again at 6500 feet. We had decided on this leg to go GPS direct to Waco. The good part of this was that we missed restricted area R-3801. If we had taken airways, the airway abruptly stops at one side of R-3801 and picks up on the other side with no way to get through. The bad part of this was that Doug's hand-held Garmin 55 GPS (remember those?) had been only semi-reliable, and he normally preferred to stick close to the VORs. Prior to departure, he told Gary "Don't you lose me!"

The rest of the flight was nominal, at least until we checked in with Waco Approach. As was our procedure, after each frequency change, Gary would call on the ATC frequency "six-niner-one flight check." Doug would then answer with "2." That way we knew that we both made it through the frequency change, and then we would talk to ATC. Well, apparently Waco Approach hears this a lot with the various military training flights coming through there, because this time after Doug replied "2" we heard very clearly and distinctly "3." Gary and I looked at each other puzzled, as did Gail and Doug. After thinking "That was odd" and "Did we add another wingman?" we decided to just press on and Gary made his usual radio call to

Waco Approach. Things started to get clearer when the voice that answered back sounded strangely like the same one that said "3."

Shortly thereafter the controller couldn't stand it anymore and called "Skywagon six-one-six-niner-one, understand you have a MOONEY with you?!" Gary answered in his most non-chalant tone "Yea, he's got it pulled way back for me." To which Doug then chimed in with "Yea, that's me, Mr. Peabody and the Wayback Machine!"

We continued in toward Waco Regional, while positively identifying TSTC Waco as the wrong airport, even if there was a C-17 or C-141 doing low approaches there. We spotted the lake, found the airport, and called for landing as a flight. We were cleared to land as a flight, and by golly, we weren't going to embarrass ourselves again by asking if that meant both of us. Well, apparently we weren't the only ones who remembered our stop about a week prior. Gary called Texas Aero on the UNICOM requesting overnight tie downs. The response was something like "Welcome back. The line guy will go to the tie down line this time."

Route of Flight: HEZ – ACT. Flight time: 3.0 hours.

Doug Dodson Sr was there again to meet us. This evening we patronized another fine restaurant in Waco near Buzzard Billy's. This one was named "Crickets" and its claim to fame is having 100 different types of beer on tap. One huge wall of taps. We discussed what the plumbing must be like behind that wall, and wondered if it was just a big keg of Budweiser feeding all of the taps.

#### Crossing the Continental Color Divide

We arose early on the morning of Friday with the intention of flying from where the land is mostly green to our more familiar brown tones. After another fine breakfast, we headed out to the airport. A weather check indicated winds out of the North to North-East. At least they weren't direct headwinds today, and possibly a hint of tailwinds.

Heading out of Waco, we climbed to 8500 feet, which was above the bases of the scattered cumulo-puffies. As expected, this gave us a relatively smooth ride. If only someone had been there to say "Enjoy it now! For later..."

At least today we were getting better ground speed than yesterday. As we approached Lubbock, the scattered clouds became more organized as an overcast at about 9000 feet. We came in under that, still in VMC. Yes Southern Californians, it is possible to be in VMC even with clouds in the sky.

The Lubbock airport goes out of its way to be accommodating. When we were traveling south through Lubbock, we landed to the south and took off to the south. Now that we were traveling north, they shifted the wind for us so that we could land to the north and takeoff to the north. How nice of them!

Route of Flight: ACT – ABI – LBB. Flight time: 2.5 hours.

#### Land of the Sharp Edged Gusts

This was a much shorter stop than our previous stop at Lubbock. We checked the weather as the line folks gassed up the aircraft.



We launched north on our VFR route via the Corona VOR. It is important to mention this to ATC, especially since the direct route from Lubbock to St Johns would drive you right through R-5107, the restricted area for the White Sands Missile Range. Going to the Corona and Socorro VORs will get you past the restricted area, and ATC in this area is very interested in making sure you know that.

For starters we climbed back up to 8500 feet where we had been before. We deviated somewhat from our planned course to go around a sizeable cell that was brewing just northwest of Lubbock.

As we continued, the clouds started thickening up below us. So we did what any formation would do in the face of thickening cumulo-puffies below—we tightened up the formation and took pictures!

Farther on, the clouds started to break up, which was good. However, the cloud bases started increasing in altitude, which is bad. With two soaring CFIs in the formation and one budding glider guider, we knew that cumulus clouds sit on the top of rising air. If the bases were coming up, so was the turbulence. Therefore we made a slow climb from 8500 feet to 10,500 feet. Not to be outdone, the cloud bases continued to climb to our altitude and on up to what appeared to be greater than 12,500 feet.

Now it was time for a decision. The winds favored flying at a lower altitude, while the turbulence favored flying at a higher altitude. We decided to take our lumps and headed back down to 8500 feet. And thus we entered into “the washing machine.”

Eventually all of the clouds disappeared, leaving no clue as to where the turbulence stopped. Turbulence was the hot (*pun?*) topic on the ATC frequency, and it seems the passengers in First Class up in the Flight Levels were having severe hot coffee spillage alerts.

As we bounced our way along, Gail noticed an interesting sight to the south. We were passing the Very Large Array (VLA), which is a whole bunch of radio telescopes (i.e. BIG antennas) on tracks where they can be moved around into different configurations. They sit on a plain that is ringed by mountains, which help to block radio noise from line-of-sight signals. This is where, amongst other things, numerous enthusiasts argue over which long distance service to use to phone E.T. You can see it on the Albuquerque sectional just to the west of White Sands (about N34° 05' W107° 37').

Besides being in the land of brown landscapes, we also found ourselves in the land where airports hide. Following our trusty GPS, we continued to bore in toward St Johns Industrial, but could not successfully break out the airport from the surrounding optical clutter of the town. Gary identified it before I did, and was setting up on base for the traffic pattern when I finally identified the runways, now huge and obvious. I guess the airport manager finally turned the stealth switch off.

This time the winds were a much more familiar and acceptable 340/11 with landing on runway 32. Since no one was even within VOR range of the runway other than us, we set up for our first and only overhead pattern of the trip. We flew down the runway at pattern altitude,

“breaking” to downwind at about a 5 to 10 second interval, then following the pattern around to landings.

Route of Flight: LBB – CNX – ONM – SJN. Flight time: 3.4 hours.



St Johns Industrial turned out to be just what we expected. They did indeed have inexpensive gas, which is one of the selling points they use to get people to visit there. They even have auto gas on the field for those of you who can use that sort of fuel. We were handed the keys to the AMC Eagle courtesy car, which was in reasonable shape compared to most courtesy cars. I was summarily elected as the driver (I didn't get a chance to vote, although it would not have mattered), and I started having flashbacks to driving my 1974 AMC Gremlin around the country. (Say what you want about its unusual appearance—the car lasted 17 years and something like 200,000 to 300,000 miles for me. Unfortunately, the speedometer drive gear only lasted for about the first 100,000 miles.)

We proceeded to Corky's for lunch, as directed by everyone at the airport. It was barbecue day, so we took them up on it. If you have reason to go to St Johns, ask them how to get to Corky's.

### "Put another quarter in"

With fear and trepidation of revisiting what we had just seen at Corky's (once was good, twice is not), we climbed back into our aerial contrivances and headed back up into the washing machine. We headed up to 10,500 feet. Just think, some folks pay big money at Disneyland to get bounced around like this for just a couple of minutes. We get to “enjoy” it for hours!

Eventually the turbulence came to an end, yet we hardly noticed in the brain-numbered state we had been beaten into. Eventually Doug realize what had happened and called on the mission frequency “Hey, the washing machine stopped! Somebody put another quarter in!” Mission Kommander Aldrich vetoed that suggestion, saying “No, I'm enjoying the ride.”

As we approached Prescott, the terrain started looking familiar again. We continued on, looking at things we had seen before. Eventually we were handed off to Joshua Approach, our home ATC provider, and Doug responded to the flight check-in with the most enthusiastic “Two!” we had heard in the past week.

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Passing the southwest corner of Rosamond Dry Lake, we broke up the formation as Doug gave us a big wing flash pulling away toward Rosamond Skypark. It looked just like all of those *Ultimate Flights* episodes, only much cooler.

The Fighting Skywagon followed the time honored procedures for returning home from a deployment (sound good on the radios, look good on final). With one final landing worthy of the *Project Police*, we taxied up to the fuel pumps one last time.

Route of Flight: SJN – DRK – EED – HEC – WJF.  
Flight time: 3.4 hours.

In the final action of the trip, we taxied the Fighting Skywagon back to the hangar, unloaded all of the stuff and goodies, and the Sun'n Fun 1999 *Project Police Tactical Assault Force* dispersed back into the population at large.

### S'atistics

As compiled for the VC-180 Fighting Skywagon:

Total Flight Hours: 35.20  
Total Air Miles: 3882.22 nm (Does not include Sun 60 mileage)  
Total Fuel Used: 421.7 gal (Fighting Skywagon), 250 gal (Strike Mooney)  
Total Fuel Cost: \$877.47  
Average Fuel Cost: \$2.08/gal  
Average MPG: 9.22 (not much worse than the Bubba-truck...)  
Average Fuel Cost/nm: \$0.23/nm  
Average Fuel Cost/hour: \$24.93/hour  
Average Fuel Flow: 11.98 gal/hour  
Average Groundspeed: 111.82 KGS (Includes Sun 60)

### Lessons Learned

This being my first trip to a major fly-in (Sun'n Fun or AirVenture) and my first ultra-long range cross country, there are a few things that I noticed that I thought I would pass along:

#### ATC

In general, ATC was very good throughout our trip. We used VFR Flight Advisories (sometimes referred to as flight following) whenever they were available. We felt this was much better insurance of someone knowing where we were shouldst we go down than a VFR Flight Plan, which might take hours to raise the question.

Using ATC for long periods of time can give your airplane an identity crisis, however. Even though we always reported as "Skywagon six-one-six-niner-one flight," at various times during the trip we were referred to as a Skywagon, a Skylane, a 206, a Bonanza, a Cardinal, a Caravan, and a 182. Figure that one out.

#### Instrument Rating

If you ever intend to make cross country trips in your airplane, you owe it to yourself to get an instrument rating (assuming your aircraft is appropriately equipped). At least twice on this trip we would have been sitting on the ground waiting for weather that was easily flyable IFR.

### Smooth Air above the clouds—but don't get trapped

Thermals don't go up to infinity. Eventually they stop, and if there's enough moisture a cumulus cloud will form. If there are scattered cumulous clouds in the area and you can get above their bases, you'll probably find smooth air. However, don't fly along merrily on your way and let the scattered clouds become broken or undercast below you, leaving you no way to get down (unless, of course, you are qualified to shoot an instrument approach).

### Take your AOPA directory

If you're flying outside of your extended local area, take your AOPA Airport Directory with you (you do have one, don't you?) Approach books don't have all the airports you might go into or all of the information you might want. Airport Guides are nice, but they don't cover the entire country (unless you buy a whole bunch of them). The AOPA Airport Directory is a good, concise reference when you're that far away from the home 'drome.

### Formation Procedures

Finding a good mission frequency can be a challenge, and may need to change as you go across the country. Use it for necessary communications in the air, and keep the general BS conversations on the ground.

With GPS or VOR/DME you can rejoin a formation without external help using the procedures described earlier. Just make sure everyone is working on the same waypoint.

### Airshow Time—Where's the Dead Line?

If you're at a fly-in with an airshow, there are certain areas that the FAA insists be free of people under the performers. It's a good idea and for your safety. The boundary of this area is referred to as the dead line, which has nothing to do with getting your newsletter articles in on time. It's to your benefit to know where this line is, because some exhibits or airplanes may be in the area where you can't be during the airshow. If your aircraft is one of these, you'll need to make plans such that you don't have to be at your airplane during the airshow.

### Manufacturers vs Dealers

One of the things that I learned at the fly-in was that the manufacturer's booth in general is set up to educate you about their product and convince you that you just have to have it. When you're ready to buy, though, then they will send you to one of their dealers, and there may be many of them represented at the fly-in.

Depending on agreements invisible to you, you may find a difference of price on a product between dealers. You can shop for the best price, or if you like a particular dealer for some other reason, use the other guy's price to try to get your favorite dealer to lower his price. However, some companies may direct their dealers not to discount their price. Every dealer (5 to 10) I asked about the Lightspeed 20K headset quoted me the exact same price. I can't believe that was coincidence.

Realize the guy in the booth has his sales pitch prepared and is eager and ready to use it. Any question

you ask may launch him into his sales pitch, whether or not it actually answers your question.

Look for any deals like no sales tax and free shipping if you order an item instead of picking it up there. If you can wait for the item, it's a good way to save a few bucks and a few pounds of gross weight on the way home.

I found it entertaining to eavesdrop on some salesmen as they tried to explain to visitors from other countries why they had to pay sales tax on items purchased at the show regardless of where they're from.

## Communications

The *Project Police Tactical Communication Devices (PPTCD)*, more commonly known as Family Radio Service radios, were very successful. They were great for coordinating schedules, locating fellow *PPOs*, and generally reducing stress levels. Because of the large number of channels and tone squelch settings, it is easy to filter out all of the folks you don't want to hear and only listen to those that you want to.

Use of the *PPTCD* is not limited to just fly-ins. Buy a pair and convince your wife next time you're at the mall to let you go check the *PPSNTK* files maintained in the Craftsman Department at Sears while she shops for clothes in Harris. She'll still be able to contact you when it's time to go. They are also useful when driving multiple cars in loose formation, and somewhat nicer than CBs because you can filter the other folks out.

We used a model marketed by Kenwood (also by ICOM) in *Project Police* stealth black. The same model is also available in high visibility survival yellow. There are other manufacturers out there too, such as a Motorola. I bought mine at Best Buy for around \$130 a piece. I expect the prices will continue to come down. You'll want one with all 14 channels and all 38 tone squelch settings. There are cheaper models available, but those typically don't have the tone squelch settings, or worse yet, only have one channel. I've also seen the radios advertised at Radio Shack®. They were also at all of the avionics dealers at Sun'n Fun, so you could check places like Pacific Coast Avionics.

## Know Your Project

Be sure you've fully studied your project for parts you might be able to pick up at the fly-in. It's tough to buy rod end bearings when you don't know what size you need. While there, keep your mind open to items that might be useful. You may be able to get something at a discounted price at the show. As **Charleen Beam** has told us, vendors are usually more interested in selling you something than in packing it and hauling it back.

If nothing else, pick up catalogs from various dealers. It's a lot easier than ordering them all by mail.

And for all of this stuff you'll probably buy, be sure to take plenty of extra money or an unencumbered credit card. And bring an extra bag to put all of the stuff in.

## Camelbak Hydration System

For many years I would come home from one day visits to fly-ins feeling tired, light-headed, and with a headache. It appears that the problem was mostly that I was dehydrating. Many people have said that soft drinks

like Coke do not rehydrate you, and may actually dehydrate you by making you do more Port-a-Potty inspections. Straight water is the best rehydrator. Someday you may convince yourself of this.

In service to the Chapter, during Sun'n Fun and the flights to and from, the **Kommandant** and **Webmeister** did extensive tests of the Camelbak® Hydration System, first introduced into *Project Police* service by **Brian Martinez** and **Ed Dutreaux**. The Camelbak is basically a water bladder in a backpack case with a long tube coming out. On the end of the tube is a valve which is normally closed, but is opened by biting it. Sucking on the tube like a straw brings in the water.

We found the Camelbak to be SATISFACTORY and Level I in mission suitability for fly-in hydration. It was extremely convenient, as it was always there, instead of chasing down a cup. There were no cups to carry or keep up with. Other than inserting the tube in your mouth, it was a hands-free operation. Insulation in the carrier keeps the water colder longer. Certain models have additional storage space for small items in the backpack.

I have not see Camelbaks available in local retail stores (haven't looked too hard either). You can order one from either REI (<http://www.rei.com>) or CampMor (<http://www.campmor.com>). As a side benefit for ordering, you'll be inundated with catalogs in the mail for the next decade.

*(Whew! We're finally done! Now we need you to submit your articles for publication!)*

- **Erbman**  
Official Trip Historian

## Camarillo Fly-In PPTAF

Working undercover for the *PPTAF* as aircraft judges at the Camarillo Air Show, 19 & 20 June, **Joe** and I were able to locate and identify various aircraft anomalies (see photos). Of course, we know the science of aircraft inspection is complex, and we never finished our training in this area, so some of our observations may be in dispute.

Our highly trained canine support aided us by looking so cute and gawking at passers-by who were carrying food, thereby enhancing our cover and distracting the casual stroller from our critical gaze.

We cannot offer more information as it's too sensitive to be entrusted to the U.S. mail.



**Jenna and Joe Ware, Undercover Project Police Officers, posing as EAA Chapter 723 Judges**





**Hole In Cowl**



**Bent Fuselage**



**Fuselage Missing**



**Two Thumbs Up for Rare Bear**

- Jenna Ware

## **Boredom Fighter Update**

Well, looks like I'm heading to OSH next Tuesday with my cohort in crime in the next-door hangar. We're taking his 2500 hour E-Z so it ought to be a shorter trip than my BF. Should be up there Wednesday AM and then depart the following Monday or Tuesday. Any further info on anyone else that's going?

On the BF front...I now have about 10 flights and 7.6 hours. During the first flights I had an oil leak that was depositing oil in the bottom of the cowl after each flight, not noticeable during ground runs. After this dumped 1/2 qt of oil along the belly during a 1.5 hour flight (flight #7), the problem was trouble shot to a crack in the oil tank. Pro-seal didn't do a bit of good but to slow it somewhat, so the tank was removed, and sure enough, a 3" crack was found behind the flange on the forward side. Probably not unexpected for a 50 year old oil tank that's been who knows where. Also had a front case seal that was leaking and appeared to be an installation error originally. This was removed (not easy with a flanged shaft) and replaced. Test flew yesterday after these fixes and the result is a very dry engine! Now time to fly a little...or a lot.

Overall, the BF is performing pretty good. This airplane is a real blast to fly although it's not been upside down yet. I had been getting current in a Citabria prior to first flight and had the opportunity to fly one this weekend. After flying the BF, it really felt like flying a truck! The BF is somewhat slow compared to others, but I can easily exceed RPM redline in level flight by at least 200 RPM. Since I'm using a 72x42 Sensenich, I have room to move to a 72x44 and gain the additional 10 MPH. A minor rigging problem has been cured and everything seems to be running great. My hand-held Icom IA-22 is working very well and I'm actually surprised how well it works, considering I am not using an external antenna.

So far, Edwards is on the list of must-dos.

- **Jim Piavis**

EAA Chapter 1000 Det 11  
San Carlos/Mountain View CA

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## **Norm Dewitt Air Show Update**

Hi Russ,

I just finished the July issue of the Newsletter. Well done. I enjoyed reliving your trip to Sun and Fun.

Over Father's Day weekend, I flew an air show in my Eagle at Moffett Field. Attached is an air to air picture of my "wings over Moffett". Please add it to the site if you like.





You may have heard about my engine failure in the Edge 540 last February. Well, the plane is being rebuilt at the factory. The fuselage has been repaired, and new wings and firewall forward will be built beginning in September. The plane should be flying again in January, 2000.

Hope to see you all at the Open House.

- **Norm DeWitt**  
EAA Chapter 1000 Det 11  
San Carlos/Mountain View CA

## Thoughts on Wood Fatigue

*(As published on the Bearhawk e-mail list)*

On the issue of wood fatigue.

In general, for ductile metallic materials, fatigue failures result when the endurance strength of a material is exceeded for a number of defined loading cycles. The mode of failure is a breakdown of the material grain structure propagating from an area of localized stress caused by material flaw, surface condition or change of material section. The failure is visually indicated by a crack. After the formation of the crack, complete section failure follows in a rather short number of cycles.

Now for wood.

Wood is organic. (Nature's composite and a lot better than epoxy and glass when used in the Bar-b-Que.)

Wood has a cell structure (grain) that is composed of Cellulose material. (Not to be confused with cellulite which many of us are familiar with.)

When the moisture content of wood is maintained within correct ranges, the mode of failure when endurance strength is exceeded is an increase in deflection. The material becomes more compliant. (your wings flap more) If moisture content is too low the material will shear with the grain. (Assuming we are talking spar here)

Hence by definition, Fatigue Failure is when repeated application of a load will exceed the endurance strength of the material, and cause a change of material properties that result in an unsafe condition.

Now how about all those who restore old wood, tube and fabric aircraft? All the articles go something like this...After removing that old grade A cotton and cleaning out the rat's nests, both spars were replaced because of cracks at the root and compression attach points....

How did those cracks get there?

Further reading:  
Fundamentals in Machine Design, Phelan  
Forest Products Laboratory Formulas and Reports  
National Forest Product Association

- **Kevin Deutscher**  
Phoenix, AZ  
Bearhawk272@aol.com

## Web Site Update

Checking the big web site on 10 September 1999 found the hit counter at **32361** hits, maintaining a typical hit rate of about 40/day. The newsletters have been posted up through June 1999.

Information on the Edwards Open House should be posted by the time you read this.

Other than that, Bearhawk progress continues to interfere with any Web Site work. Aw, shucks.

- **Russ Erb**  
Webmeister



Just a reminder that the EAA Chapter 1000 Web Site is hosted courtesy of Quantum Networking Solutions, Inc. You can find out more about Qnet at <http://www.qnet.com> or at 661-538-2028.

**Chapter 1000 Calendar**

Sep 18: EAA Chapter 49 Old Fashioned Fly-In, General William J. Fox Field, Lancaster CA (661) 948-0646

**Sep 21: EAA Chapter 1000 Monthly Meeting, 5:00 p.m.**, Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 609-0942

Oct 6: EAA Chapter 49 Monthly Meeting, 7:30 p.m., Sunnydale School. 1233 S. Ave. J-8, Lancaster, CA. (661) 948-0646

**Oct 9-10: Edwards AFB Open House and Airshow**

Oct 7-10: Copperstate EAA Regional Fly-In, Mesa AZ

Oct 12: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., Edwards AFB. Test Pilot School, MOL Room (661) 609-0942

**Oct 19: EAA Chapter 1000 Monthly Meeting, 5:00 p.m.**, Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 609-0942

Nov 3: EAA Chapter 49 Monthly Meeting, 7:30 p.m., Sunnydale School. 1233 S. Ave. J-8, Lancaster, CA. (661) 948-0646

Nov 9: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., Edwards AFB. Test Pilot School, MOL Room (661) 609-0942

**Nov 16: EAA Chapter 1000 Monthly Meeting, 5:00 p.m.**, Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 609-0942

Dec 1: EAA Chapter 49 Monthly Meeting, 7:30 p.m., Sunnydale School. 1233 S. Ave. J-8, Lancaster, CA. (661) 948-0646

Dec 14: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., Edwards AFB. Test Pilot School, MOL Room (661) 609-0942

**Dec 21: EAA Chapter 1000 Monthly Meeting, 5:00 p.m.**, Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 609-0942

Jan 5: EAA Chapter 49 Monthly Meeting, 7:30 p.m., Sunnydale School. 1233 S. Ave. J-8, Lancaster, CA. (661) 948-0646

Jan 11: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., Edwards AFB. Test Pilot School, MOL Room (661) 609-0942

**Jan 18: EAA Chapter 1000 Monthly Meeting, 5:00 p.m.**, Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 609-0942

Feb 2: EAA Chapter 49 Monthly Meeting, 7:30 p.m., Sunnydale School. 1233 S. Ave. J-8, Lancaster, CA. (661) 948-0646

Feb 8: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., Edwards AFB. Test Pilot School, MOL Room (661) 609-0942

**Feb 15: EAA Chapter 1000 Monthly Meeting, 5:00 p.m.**, Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 609-0942

**For Sale:**

Sonera IIL project. Fuselage and wings 95% complete. Modified for A65 engine. Engine torn down for overhaul but complete with a great many spare engine parts. Includes instruments. Hydraulic brakes. All excellent work. Call Fletch Burns 760-373-3779

WANTED - Location and/or names of owners of AT-11's. Hulks, parts, or flying. Call Lee H. Erb, (817) 275-8768, or e-mail LeeErb@Compuserve.com

*To join Chapter 1000, send your name, address, EAA number, and \$20 dues to: EAA Chapter 1000, Gary Aldrich, 42370 61<sup>st</sup> St. W, Quartz Hill CA 93536. Membership in National EAA (\$40, 1-800-843-3612) is required.*

*Contact our officers by e-mail:*

*President Gary Aldrich: gary\_aldrich@pobox.com*

*Vice President George Gennuso: pulsar1@qnet.com*

*Secretary Miles Bowen: mbowen@cybersurfers.net*

*Technical Counselor Gary Sobek: gasobek@jps.net*

*Inputs for the newsletter or any comments can be sent to Russ Erb, 661-258-6335, by e-mail to [erbman@compuserve.com](mailto:erbman@compuserve.com)*

*From the Project Police legal section: As you probably suspected, contents of The Leading Edge are the viewpoints of the authors. No claim is made and no liability is assumed, expressed or implied as to the technical accuracy or safety of the material presented. The viewpoints expressed are not necessarily those of Chapter 1000 or the Experimental Aircraft Association. Project Police reports are printed as they are received, with no attempt made to determine if they contain the minimum daily allowance of truth. So there!*

**THE LEADING EDGE****MUROC EAA CHAPTER 1000 NEWSLETTER**

**C/O Russ Erb**

**6708 Doolittle Dr**

**Edwards CA 93523-2106**

**<http://www.eaa1000.av.org>**

**ADDRESS CORRECTION REQUESTED**

**THIS MONTH'S HIGHLIGHTS:**

**REGULAR MEETING 21 SEPTEMBER AT TPS**

**RODNEY HOWES RV-6 FIRST FLIGHT**

**SUN'N FUN PPTAF FINALLY GET HOME**

**PROJECT POLICE AT CAMARILLO**

