

THE LEADING EDGE

NEWSLETTER OF MUROC EAA CHAPTER 1000

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

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http://www.eaa1000.av.org

April 2009

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:



Cookout with the USAF Academy Cadets

Tuesday, 21 April 2009 1830 hrs (6:30 PM Civilian Time) High Cay Partyhaus or Flying Dog Ranch Rosamond, CA

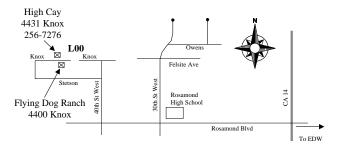
Colleagues,

For our next chapter meeting, we will once again play host to the students of Aero 456 on 21 Apr 09. As you may know, this is the course at the USAF Academy that teaches flight test techniques to some promising young minds. (I hear the course is three times as hard as Aero 152, but only twice as hard as Aero 228.) Their curriculum includes a field trip to the Mecca of flight test, Edwards AFB. Thanks to our close association to the USAF Test Pilot School, we have the honor of including these cadets (Kaydets, in Chapter 1000 speak) in our circle for an evening. Oh, heck! It's just a darn good excuse to fire up the grill, eat **Dead Cow Patties** (DCPs) and talk about airplanes.

As in the past, we plan to convene at **High Cay** and enjoy the gracious hospitality of **Doug** and **Gail Dodson**. However, as you may know, in a selfless effort to jump start the California economy, the Dodsons have undertaken a major expansion to the hacienda at High Cay. So, we

may be diverted across the street to the **Flying Dog Ranch**. I like to call it the "**Irvine Flight Center**." After all, getting sawdust on the burgers is not the right way to increase the fiber in your diet. Either way, expect charcoal ignition at 1830 with seared **DCPs** coming off the grill shortly after. Our own "**Cobra**" **Troxel** will be wielding the spatula as **Grillmeister**. The evening will surely include a no-notice **Project Police** inspection of any aircraft under construction within the area. We may even get to participate in the annual flipping of the **Glasair** fuselage. For my part, I'm hoping to have finished the Aluminum Planner so I can at least fain to have furthered the Total Rivet Count (TRC) beyond the all too stagnant value of **2521**.

So, fly in, drive by, or just get on over to one of those hangars on Knox Avenue and help us swap lies and hero stories and ensure that these cows did not die in vain.



- Scott "Stormy" Weathers

Vice Kommandant

Eighteenth Annual *Project Police* Airport Barbecue 9 May 2009 at Rosamond Skypark



By order of your **Board of Directors**, **Scotty "Doc" Horowitz has left the airport**. We've been sending him away for 17 years, and we did it so well that none of us have any idea **where** he is, and only a small pittance of us even remember **who** he is.

Of course, the *Project Police* aren't about to let a good reason to party go away, so we've merely changed the name. The number will continue to show we've been able to keep something going for a significant amount of time.

We're looking for a better name, so feel free to submit your ideas.

Due to a perceived lack of interest and because the treasurer hasn't yet received the chapter stimulus check, this event will be somewhat downscoped from last year. The Spot Landing contest will be on hiatus, but you probably won't notice because you didn't fly in last year. For that matter, hardly anyone else did. Likewise, the People's Choice airplane judging has been cancelled because the Board of Directors determined that no one could ever top Erbman's Three Sigma it's tough to make a decision if there are no airplanes there.



The best part will remain—there will be food!

The date has been moved up a week to try to deconflict with other popular aviation events, such as the Chino airshow and the Mojave airplane display fest.

This year only: You'll want to be there to wish a big *Project Police* Happy Birthday to *PPOs* Gary Aldrich and Brian Martinez!



The big event will still happen at the newly expanded **High Cay Partyhaus** on **Rosamond Skypark**, so you can still fly in if you so choose.

Clear your calendar now! More details next month.

HEY DUES DELINQUENTS!!!You're being cut off!



Yep, this is your last newsletter. You can, of course, still avert this disaster by forwarding your dues check (\$20) in according to the directions on the last page.

This is the last time we'll remind you. You're on your own

now.

We'll publish the 2009 Chapter Roster with the May newsletter.

Last Month's Meeting

EAA Chapter 1000

USAF Test Pilot School, Scobee Auditorium Edwards AFB, CA 17 March 2009 **Gary Aldrich**, Presiding

The March meeting of 2009 was held at the Test Pilot School auditorium at Edwards, AFB, with ten members and guests in attendance. I arrived at Edwards via the South Gate greeted by a flight of no less than six C-17s making an overhead approach to runway 22. Pulling into the TPS parking lot, there was a two-seat MiG-15 next to an F-16D on the adjacent ramp. Never know just what you'll see at Edwards.

During the pre-meeting social half-hour while we enjoyed our usual rations of soda/C3's/chips and salsa, **Captain Joe Browning** (TPS Class 08B) was describing his test project currently underway utilizing the aforementioned F-16. This Block 40 aircraft has an instrumented Block 15 ventral fin with a combination sensor and patch that senses acoustic vibrations and then feeds a 180 degree opposite vibration signal to the fin in order to achieve active dampening. Think of this as similar to your noise cancelling headset.

The **Kommandant** opened the meeting with a short video on U-2 landings, or should I say landing attempts, a replay of the Steve McQueen glider sequence from the movie "The Thomas Crown Affair", and a clip of the testing of the Air Force Academy gliders performed at Edwards in 2004.

The evening's featured speaker was our own **Russ** "Erbman" Erb discussing the World War Dos Waco CG-4A Cargo Glider and a comparison of it with modern gliders.

First, let me point out that this aircraft has no engines. It's...well, a **glider**. It has to be forcibly drug into the air by another aircraft that DOES have engines.

I know. That makes no sense at all, you say. If aircraft had been meant to fly without engines, **God** would not have created **Pratt and Whitney**.

None-the-less, some interesting facts emerged on war gliders and the Waco. Following World War One, Germany had developed gliders as a result of the Treaty of Versailles which prohibited powered aircraft. They successfully used gliders for airborne assault in the Battle of Crete, but at great cost, and were never used again to any significant degree.



Even so, the concept appealed to the US military as a way to quickly deliver large amounts of equipment and

personnel into a concentrated area and thus achieve surprise. Large parachutes or cargo aircraft had not been developed at the time, and the cargo planes available such as the C-46 and C-47 could tow more weight than they could carry.

The CG-4A had a wing span of 83.7 ft, weighed 3600 lbs empty, a gross weight of 7500 lbs, and a useful load of 3900 lbs (note this is more than the empty weight), and an emergency load capability of 9000 lbs (useful load of 5400 lbs, but with corresponding performance degradation). It had a crew of two and could carry 13 fully equipped troops, or equipment such as a jeep, 75 mm Howitzer, 37 mm anti-tank gun, or a specially designed airborne bulldozer.



13 Fully Equipped Troops



Airborne Bulldozer

The CG-4A consisted of over 70,000 parts of welded steel tubing, wood and fabric and was built by several manufacturers including Waco, Ford, and the Gibson Refrigerator Company with 13,909 total units produced.

The CG-4A was not designed as a sailplane. It was a cargo aircraft without engines. Once released from the tow plane, you were committed to land...quickly. The CG-4A used the unusual NACA 43012 airfoil with a high design lift coefficient for slow flight at minimal drag, camber keeping the required angle of attack lower and drooped leading edge that acted like a leading edge flap. Still, it had a glide ratio only slightly better than the space

shuttle or a rock. Its normal glide speed was about 70 mph and a sink rate of 500 fpm.

Airborne troops largely preferred parachutes over the gliders due to safety and the "jump pay" bonus. The gliders, crew and troops who flew on them suffered a high mortality rate. Most of the airframes were damaged or destroyed on landing and abandoned in place.

While there were many surplus gliders after the war, the five wood crates needed for each glider (remember, this was a fairly large aircraft) were more valued than the glider they contained. The crates were bought and the gliders tossed. Only four restored examples survive today.

Concluding the meeting, the **Kommandant** declared that once again "Victory" had been achieved and America was safe from democracy, the secret signal to abandon the facility and reconvene at the BK lounge. I'm not sure, but I think we made Russ pay for his own dinner (*yep...*) for making us listen to some lame presentation on aircraft that DON'T have engines. Maybe we'll just reduce his dues next year.

- Kent "Cobra" Troxel Minister of Propaganda

Kommandant's Korner

It appears
that the March
winds were delayed this
year into
April...probably the
fault of the government.
The mighty Fightin' Skywagon

was poised last Friday to spirit the "lower-California" Aldriches up to Humboldt County (KACV) for a quick weekend visit to the recent-weds, Rachel and Greg. This was a large-force, complex operation that involved multiple aircraft (specifically, the Strike Mooney) as well as a ferry mission to deliver *PPO* Nathan Davis to visit kin in Fresno. The Dodsons (including visiting mom-in-law Lorraine) planned to explore some of the local barley-pop emporiums they had ID'd during last Autumn's wedding trip and try out the accommodations at the Lady Anne B&B. Anne thought that Pixel's cross-country currency had nearly expired so the mission requirements were set.

Alas, it was not to be. At the T-1 brief held at BJ's Restaurant and Brewhouse, the aircraft commanders studied the forecast and noted the potential for one of the AV's famous "wind events". The jet stream was pretty much parallel to the coast and being forced to lower altitudes by some weather phenomenon I barely understand. Not one to succumb to a nasty forecast...and fortified by the Jeremiah Red ale I decided to delay the go/no-go decision until we'd checked the observation in the morning. When morning came it appeared that the weather-guessers were right...this time. The ASOS at Fox reported 25G35 and the NOAA website was calling for 85 knot headwinds at our 9000 foot cruising altitude. I reluctantly called *PPO* Dodson and cancelled the mission. Later in the morning I read PIREPs from some brave souls

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that fairly screamed about the SVR TURB. In case you haven't reviewed AC 00-45E lately, aircraft react to Severe Turbulence with "large, abrupt changes in altitude and/or attitude...large variations in...airspeed...(and are) momentarily out of control." The people in those aircraft "are forced violently against their seat belts...(and) unsecured objects are tossed about." Call me crazy, but I didn't think even Mrs Kommandant's miraculous "Relief **Band**TM" would make this trip enjoyable or even tolerable. Thus, the VC-180 remained behind closed doors and I was relegated to more terrestrial pursuits. Despite the pangs of guilt for spoiling the weekend plan, I was secure in my belief that I had weighed the risks in good "Operational Risk Management" (ORM) fashion and had arrived at the right decision. Hopefully, this weekend will bring gentler breezes and I can give the Skywagon the exercise it deserves.

Speaking of this weekend, today is **Good Friday** (and the second full day of Passover*). **Anne** joins me in wishing everyone a happy holiday.

Check six (and the weather) and Fly Safe!

- Gary Aldrich, Kommanding

*Passover moves around a bit due to the use of a lunar-based calendar. If you want your brain to explode, check out the Hebrew Calendar calculation at http://www.jewfaq.org/calendr2.htm

Operation PHOENIX NOISEMAKER... continued

The effort to raise **Three Sigma** from the ashes of defeat continues. At the end of our last installment, we were waiting for the release of the crankcase from the overhaulers for want of a few studs. Thankfully they weren't waiting for a nail or the whole country might have collapsed.

The crankcase finally returned, and with the help of **Dave Vanhoy** was moved to the engine overhaul facility.



Step one actually had nothing to do with the crankcase, but we waited until the crankcase showed up since it didn't take long and step two did involve the crankcase. Step one was to assemble the connecting rods on the crankshaft with \$500 worth of brand new

connecting rod bolts and nuts. As **Bill** commented, the torque on these nuts is the most critical in the entire engine, so of course they are the ones you "practice" on since they are the first to be installed. The result looks something like an abstract motorhead Christmas tree.



Since the crankcase was getting an overhaul at Chuck Ney Enterprises Inc (http://www.chuckneyent.com/) in Tulsa OK, I took advantage of this opportunity to have the "Ney Nozzles" installed. One of these nozzles is shown above between the lifter sockets. This nozzle taps into the pressurized oil gallery and sprays oil on the camshaft, giving it a somewhat more directed lubrication than the splash lubrication that Lycoming had in mind when they designed it. For only an additional \$300, it seemed like a good enhancement. This can be installed under an STC, but only really makes sense if you have the engine apart and are having the crankcase overhauled.



The first thing to install in the crankcase was the governor gears. The gears were new because the teeth were worn on the old gears. Fortunately the gears lined up properly with the old thrust washer, so I didn't have to figure out what different thickness I needed. These gears are driven by the front end of the camshaft.

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The new main bearings were installed in the crankcase halves and pre-greased. The new lifter bodies were installed in the right crankcase half coated with oil. The lifter bodies in the left crankcase half were coated with wheel bearing grease. The grease keeps the lifter bodies from sliding out too fast when the left crankcase half is turned upside down for assembly. Eventually the grease will wash out with the oil while running.

The crankshaft complete with connecting rods and counterweights was lowered into the right crankcase half.



The cam journals, which are just part of the aluminum crankcase (no bearing inserts) were greased and the camshaft laid in place. Some O-ring oil seals were placed around selected through bolts and studs. The thrust bearing clearances were checked. Believe it or not, that was all there was to do before reassembling the crankcase.

To join the crankcase halves together, the machined mating surfaces were smeared with Loctite 518. This is a thixotropic (look that one up) gel used to make the seal. This is a Lycoming approved method that is far more advanced than the old silk thread method you may have heard of. (Strictly speaking, Lycoming Service Instruction 1125D specifies Loctite 515. Loctite 518 is an improved version of the same stuff [compare the technical data sheets]. There are still some benefits to operating under an "Experimental" certificate.) The photo shows the crankcase just before assembly.



The crankcase after assembly, letting the sealant cure.



The back end of the crankcase, showing the crankshaft gear, camshaft gear, and shafts for the idler gears.



The rebuilt oil pump assembled in the accessory housing. This oil pump is a testament to the world of PMA parts. The accessory housing is Lycoming. The gears are by Superior. The oil pump housing is by ECi. The driveshaft is by Canadian Aero Manufacturing. Amazingly, all of the close tolerance parts fit together perfectly.



The oil pan and accessory housing were attached temporarily without gaskets to prepare for painting. After more than six hours of work with a roll of masking tape, all of the areas that shouldn't be painted were covered up. Besides keeping paint out of the inside of the crankcase, it was super-critical to keep paint off of the cylinder mounting pads. Any paint between the crankcase and cylinder would eventually break down, effectively loosening the cylinder hold down nuts, which would lead to broken studs and all sorts of nastiness thereafter.



Crankcase, oil sump, and accessory housing after painting with Superflite rattle-can paint. The color is very confusingly called "Lycoming Grey". The **Kommandant** kept trying to get me to paint it some silly color called "Continental Gold". The point of the paint was to provide some corrosion resistance to the otherwise bare aluminum. Have I mentioned lately how much I hate painting?



The accessory case was installed for good after installing the idler gears and tachometer shaft. The idler gear with the fuel pump cam was installed on the correct side with the fuel pump plunger shaft. The magneto drive gears were left out intentionally. The oil pump drive shaft was properly aligned over the crankshaft gear. Most importantly, the timing marks for the crankshaft and camshaft were checked and re-checked an uncountable number of times. Get those wrong and the engine doesn't run well or doesn't run at all.



Next on was the oil sump. Two of the intake pipes were re-swaged by Bob Browne of Mountain Valley airport, using a tool he made, copied after another tool he saw, which was copied after the Lycoming tool that Lycoming loves so much they want a ridiculous amount of money for it.

In the background you can see **Bill's** new toy—a Bridgeport milling machine that he is currently cleaning several decades of muck off of. Look for that in a future meeting topic.

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The crankcase was now ready to receive the cylinders. The six new nitrided cylinders were extracted from their packing boxes and the ring gap clearance was checked for all 18 rings. The rings were assembled on the pistons and the pistons were partially inserted into the cylinders.

At this point we ran into a work stoppage because the overhaul manual called for a piston part number to be oriented to the front of the engine, and no such piston part number was to be found anywhere. Then again, **Jim Piavis** had just landed (see Operation PECOS CRAYOLA), so it was a good time to stop for the day.

By the next day, I found out from several sources that the pistons were symmetrical and could go in either way. The orientation was only important if a piston was removed and reinstalled (should stay the same). Therefore, I arbitrarily picked an orientation and we put all of the pistons in the same way.



With the cylinders installed, the hydraulic lifters were cleaned and installed dry and collapsed as per the manual. The pushrod shroud tubes were cleaned, which removed some of the paint. Therefore, they were repainted and installed. The pushrods and rocker arms were installed. The clearance between the rocker arm and valve were checked...and many were not good. The Lycoming

solution to this is to change out the pushrods. The pushrods come in three different lengths, differing by 0.030 inches. Add in the effects of wear on the lifter cups, pushrods, and rocker arms, and it was a bit of a challenge finding pushrods that would bring all of the clearances into the acceptable range.

No reason is known why one rocker arm is a different color from the others.



The accessory case was built up with all of the various fittings and covers.



Finishing up the assembly was installing the intercylinder baffles. One of these baffles was held together with rivets driven so poorly that it was apparent that the person who did it had never seen a rivet gun. In honor of **Bill Irvine**, these were ceremoniously drilled out and replaced with properly squeezed rivets. Another baffle had a 1 inch hole in it for the fuel injector fuel hose (this was originally an injected engine). Since the hole was no longer needed and was just leaking cooling air, it was covered with an aluminum sheet riveted in place.

The oil return tubes were installed, followed by the intake pipes. At this point "Victory!" was declared.



With old spark plugs installed as dust caps, the engine was reunited with **Three Sigma** on 6 April 2009, courtesy of the Big White Ford (BWF). This was about 3.5 months after being removed from the airplane.

Next month: Reinstallation and possibly a report on the "Third First Flight."

Operation PECOS CRAYOLA

On 28 March 2009 Charter Kommandant Jim Piavis was able to reclaim his RV-7 from the paint shop in Dallas TX. In less than one day he was able to jet...er...prop all of the way from Dallas to Rosamond, with plenty of time left over. This gave him time to visit the engine overhaul shop, Bob Waldmiller, Paul Rosales, and Three Sigma, as well as take in a delicious meal and RON at High Cay.



The yet-to-be-named RV-7 was parked on the High Cay ramp to be inspected by various *Project Police* officers and various airport denizens.





As you can see, the RV-7 paint scheme is almost an exact copy from the **North American Yale** pictured above, right down to the same numbers. This Yale belonged to **Bill Piavis**, his father. A most fitting tribute.

Evil Editor Zurg's Caption Contest Result

Evil Editor Zurg was less disappointed with the response of the *Project Police* **Troopers** out there to identifying a silly looking vehicle shown in these pages last month.

Knowing that his lackey **Erbman** suffers from CRS and suspecting that many of you do as well, some of the pictures of the vehicle in question are reproduced here. These pictures were sent in independently by **PPOs** Kent "Cobra" Troxel and Lee "Erb the Elder" Erb.



A new submitter to this section **Scott "Stormy" Weathers** sent in his guess:

"The vehicle depicted is the Zephyr-Car. It was designed and built in the early 1920's by a boat manufacturer that accidently made some upside down canoes. Only a small handful ever produced - because they only made a handful of upside down canoes. Once the orientationally challenged canoes were converted to cars, they went back to building boats. It turns out, they discovered a workman was reading the boat plans from the wrong side of the table. The design offered some interesting innovations. First, the windshield stays remarkably clean in the summer because all the bugs are shredded before reaching the glass. Second, the car was seldom passed on the highway because no one wants to assume the lead on the left. It should also be noted that the Zephyr-Car was the first commercially produced automobile to incorporate the center brake light. It took NYC cabbies another sixty years to think of it, and they still think they came up with the idea. On the other hand, people often complained that the rear turn signals could not be seen from certain perspectives.

Nevertheless, the design was plagued by inherent drawbacks. The low speed handling qualities were notorious due in large part to the very low aspect ratio. Along the same lines, since the rotary enturbulator is fixed pitch, backing out of a parking space was problematic – and parallel parking was next to impossible. And, in the '20's, the ability to parallel park was all the rage. Sadly, the Zephyr-Car never achieved mass popularity in part due to the requirement for the operator and passenger to wear silly matching shirts. The final economic blow, though, came from the environmentalists. The car could not be certified in California because of the threat it posed to low flying birds."

A very impressive, obviously slightly researched response with lots of extra information. It's a real shame it was totally **WRONG!** Evil Editor Zurg did give it an honorable mention in the "funny fabrication" category.



PPO Lathan Collins III did better in the accuracy department, submitting the correct answer as:

"Hello, "Car?" is a 1932 Helicron. Built in France in 1932 (hence 1932 Helicron) it is a one of a kind. Ended up in a barn in '30s and when found recently it was restored. It even passed French safety inspection in 2000 and is road legal in France. Saves on the power transmission to wheels I suppose. However it is dangerous and probably cannot get enough torque to go up hills since you cannot downshift using lower gears."



Someone identified only as "Ryan" properly identified it and included the following links:

http://www.youtube.com/watch?v=8Dv-gl6RCGc http://www.conceptcarz.com/vehicle/z11262/Helicron -No-1.aspx

In the text originally submitted by **Cobra** and **Erb the Elder**:

"In the late 1930s this one-of-a-kind Helicron was placed in a barn and forgotten. More than six decades later this odd lost little gem was rediscovered, rebuilt, and reintroduced to the world. Although the manufacturer is unknown, it's believed that this car was built in France 1932. Following the first World War it was not uncommon for recently displaced airplane engineers to look towards the automobile industry for employment.

As in this example, a few entrepreneurs developed propeller-powered cars with the notion that propeller power was an efficient means of moving a vehicle. On this car, when the wooden propeller is spinning at full speed and efficiently, this little 1,000-pound boat-tailed skiff can hit freeway speeds exceeding 75 mph. This is the one and only Helicron in existence, owned by Lane Motor Museum in Nashville, TN."

Curiously, none of these submitters pointed out the most interesting feature of this car—it's a **taildragger!** That's right—it uses rear wheel steering. **EEZ** wonders what it is like to ground loop at 75 mph....

I still think it looks like the prototype for Chitty Chitty Bang Bang.





Web Site Update

As of 11 April 2009, the hit counter showed **126250**, for a hit rate of 15 hits/day for the last month.



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.

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Chapter 1000 Calendar

Apr 21: EAA Chapter 1000 Monthly Meeting, 6:30 p.m., High Cay, 4431 Knox Ave, Rosamond CA. (661) 609-0942

May 5: EAA Chapter 49 Monthly Meeting, 7:00 p.m., General William J. Fox Field, Lancaster, CA. (661) 948-0646

May 12: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., High Cay, 4431 Knox Ave, Rosamond CA. (661) 609-0942

May 9 (subject to change): Eighteenth Annual *Project Police* Airport Barbecue, Rosamond Skypark (L00), Rosamond CA. (661) 256-3806

May 19: No meeting. Go to Airport Barbecue instead

Jun 2: EAA Chapter 49 Monthly Meeting, 7:00 p.m., General William J. Fox Field, Lancaster, CA. (661) 948-0646

Jun 9: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., High Cay, 4431 Knox Ave, Rosamond CA. (661) 609-0942

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

Jul 7: EAA Chapter 49 Monthly Meeting, 7:00 p.m., General William J. Fox Field, Lancaster, CA. (661) 948-0646

Jul 14: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., High Cay, 4431 Knox Ave, Rosamond CA. (661) 609-0942

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

Jul 25 – Aug 1: Bearhawk/Skywagon Deployment to OSH. Sign on now! (661) 609-0942 or (661) 256-3806

Aug 4: EAA Chapter 49 Monthly Meeting, 7:00 p.m., General William J. Fox Field, Lancaster, CA. (661) 948-0646

Aug 11: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., High Cay, 4431 Knox Ave, Rosamond CA. (661) 609-0942

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

To join Chapter 1000, send your name, address, EAA number, and \$20 dues to: EAA Chapter 1000, Doug Dodson, 4431 Knox Ave, Rosamond CA 93560-6428. Membership in National EAA (\$40, 1-800-843-3612) is required.

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Inputs for the newsletter or any comments can be sent to Russ Erb, 661-256-3806, by e-mail to erbman@pobox.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!

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MUROC EAA CHAPTER 1000 NEWSLETTER
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http://www.eaa1000.av.org

ADDRESS SERVICE REQUESTED

THIS MONTH'S HIGHLIGHTS:
COOKOUT WITH CADETS 21 APR @ HIGH CAY
RAMPANT ENGINE CYLINDER VIRUS?
OPERATION PHOENIX NOISEMAKER
OPERATION PECOS CRAYOLA

