



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>

February 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:



Y(not)B-49?

Bill "Flaps" Flanagan
Tuesday, 17 February 2009
1700 hrs (5:00 PM Civilian Time)
USAF Test Pilot School Auditorium
Edwards AFB, CA

Colleagues,

Our meeting this month will be in the traditional style of Chapter 1000.

You know, meet at the **Test Pilot School**, hang out and swap lies over chips and salsa, soft drinks, and the requisite C³s (Chocolate Chip Cookies, aka Hand-Held Disks of Diet Deviation). As the last C³ is consumed, the **Kommandant** will declare, "We have a meeting!" Upon which, we will proceed in a more or less orderly fashion to the auditorium. Thanks to **Knife** and his skills and wizardry as **Vice-Kommandant Emeritus**, we are fortunate to have **Bill "Flaps" Flanagan** as a guest speaker. Most of you have heard him address the chapter on the flight test engineer's point of view of programs like the **SR-71** and the **B-2**. This month, he will talk about the **XB-35** and the **YB-49** and why the YB-49 did not become the B-49. He also has a short 12 minute DVD on the bomb testing of the B-2.

After Bill's talk, we will surely adjourn to the **Bravo Kilo Dead Cow Emporium** for more lies and tall tales.

I'll try not to bore anyone with fervent discussions of the RV-8B.

But, I could be convinced to mention a couple notable events in my efforts to produce a flying machine. I can talk about my attempts to become illuminated. Remember, any diode can be a light emitting diode once. But, there are repeat offenders out there that may find their way into my project. "Make light, not heat!" (I really did grow up in the sixties - and early seventies.) By the way, the **Total Rivet Count** stands at 2521, showing little movement in recent weeks. However, there are some wing skins that are dangerously close to getting riveted in place.

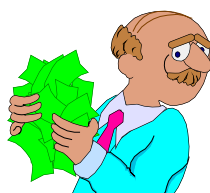
Once that starts happening, expect the TRC to go up faster than a Government bailout estimate.

- **Scott "Stormy" Weathers**
 Vice Kommandant



Pay Your Dues! Now! This Means You!

(If you have already paid your dues, please disregard this notice)



Send your cash, check, money order, or other legally negotiable instrument to any chapter officer, or pay online

by **PayPal** through

the [EAA Chapter 1000 web site](#).

Do it now and avoid the embarrassment of appearing on the **Dues Delinquent list next month!**

Last Month's Meeting

EAA Chapter 1000

USAF Test Pilot School, Scobee Auditorium
Edwards AFB, CA
20 January 2009
Russ Erb, Presiding

The first meeting of 2009 was held at the Test Pilot School at Edwards, AFB, our usual haunt, with 15 members and guests in attendance. Most notable and winning the “traveled farthest to attend” award was **Hellmuth Steinlin** from Switzerland, now residing in Pinon Hills. **Hellmuth** is an Executive Wine Consultant with PRP Wine International, Inc. He delighted in sharing that he gets paid to drink on the job. Definitely the kind of guy we’d like to recruit...so we did. **Signed him up on the spot.** He said he was impressed with the caliber of people in C1000. (Sure, it seemed like a good idea at the time, Hellmuth, but just wait until you get to know us) Helmuth owns an “**Archeopteryx**”, a 15 meter microlite (109 lb) sailplane, and is helping a friend restore a 1933 “**Pou du Ciel**” (French for “Sky flea”) monoplane powered by a 25 HP engine.



Jimmy Doolittle's guest was **Bob Roehm**, a friend from the local Quiet Birdmen chapter. Bob was intentionally vague about his life story, which only intrigued us more.

Russ "Erbdude" Erb emcee'd the evening, filling in for **Vice Kommandant Stormy Weathers** (who was delayed while performing ground tests on the C-17), who was supposed to fill in for **Kommandant Gary Aldrich** who was on spousal support duty in San Diego.

Charter Kommandant Jim Piavis had passed overhead within the last hour in his RV-7 on his way to Texas as part of **Operation Pecos Crayola** (details elsewhere in this newsletter). He was carrying a SPOT tracker, and **Erbdude** showed a web page with his position reports (every 10 minutes) displayed over a



Google map of the local area. Everyone was struck with awe and amazement. See <http://www.findmespot.com/en/> for more on this technology.

The featured speaker for the evening was **Mike Machat**, noted aviation artist, editor, publisher and good friend of the chapter. Mike started off with a clip of **Steve McQueen** flying a sailplane taken from film “**The Thomas Crown Affair**” which inspired him along his career path. This was followed by an eight minute work-in-progress video called “**Journey to Dryden**”. The main event was **two** (count ‘em, **two**) recently released digitally re-mastered episodes of “**Steve Canyon**”, the ABC series from the late 1950’s, in glorious high-definition black and white. Full **MST3K** rules were in effect. These episodes were filmed at Edwards and used stock footage which story lines were written around to use the film. The first was about a development project to demonstrate the feasibility of using a KB-50 tanker to tow three F-102 fighters in order to extend their range. Notable was one of the characters named **General “Shanty” Towne**, as well as the Chesterfield and Oasis cigarette commercials. The second episode employed footage of the F-100 Zero Length Launch project. This one featured a young **Marion Ross** (the future Mrs. Cunningham of “Happy Days”) as the object of Lt Col Canyon’s affection.

Mike followed the screenings by plugging a new book from his publishers called “X-Plane Crashes” by Tony Moore and Pete Merlin, with the cover featuring original Machat artwork. Those in attendance enjoyed a discounted price, with Mike kicking back part of the proceeds to the chapter to boot.

Vice Kommandant Weathers arrived mid-meeting, sporting a reflective belt stylishly worn over his flight suit, and was able to declare that **Victory!** had been achieved and **Justice!** served, the signal that we should leave the premises and reconvene at the **BK lounge** to eat. Mike was treated to a well-earned super-size meal, just the enticement to keep him coming back for more.



Special mention to **Doug “Houdu” Dodson** for transportation services for **Mr. Machat** in the **Strike Mooney**.

Don’t know if anyone else had the same problem, but “**Knife**” **Gennuso** and I were delayed at the Main gate in trying to leave the base. The gate was shut down with no one entering or leaving. After waiting for about 10 minutes, we rerouted to the South gate. I remember saying to “**Knife**” that it would be a pisser to get to the South gate and find the same thing. Guess what? Another 20 minute delay, with the gate finally opening as mysteriously as it had closed. No explanation. Go figure.

- **Kent “Cobra” Troxel**
Minister of Propaganda

Kommandant's Korner

I was aviating this morning with **PPTAF Trooper John "Bushman" Bush** in a **Garmin 1000**-equipped **Cessna Skyhawk**



belonging to the Edwards Aero Club. The Test Pilot School has been flying our students in the thing for "qualitative evaluation" of an integrated "glass" cockpit. It seems the F-22 and F-35 test forces are pretty stingy with their "glass" and the other PFD/MFD-ish aircraft to which we have steady access is the T-38C which has significantly fewer features available to the pilot than the G-1000 system. Thus, Bushman and I and a couple of others have been "forced" to check out in this state-of-the-art system.

While droning about the Antelope Valley in the face of an arriving winter storm we began ruminating on the impact of the "glass revolution" in general aviation...especially in the world of primary or "ab initio" flight training. Cessna has decided that glass is the future of aviation. I suspect one of the more important reasons for them is the relatively lower cost and higher reliability of the new boxes. Whatever the reason, you can't buy a new Cessna with the "steam gauges" we all grew up with anymore. The **Cessna Skycatcher**, which would be better named the "training-market-catcher" if it weren't such a catchy name, is being outfitted with a panel that looks very much like a built-in **GPSMap 696**. I'm told by Garmin that the new 3-series PFD/MFD for the Skycatcher (and other OEM LSA applications) shares a lot of hardware and software with the wildly popular portable unit. Thus, budding aviators that are now in grade school or younger will likely never see the classic "six-pack" of instruments arrayed on the panel of their training aircraft.

John opined that there could be a couple of rather unpleasant aspects of this electronic revolution. One is that we are likely to see an increase in **CFIT** (Controlled Flight Into Terrain) or mid-air encounters of the deathly type because student pilots are engrossed in flying the TV-screen in front of them instead of looking out at Mother Nature's horizon.

The other negative (in our humble opinion) is the way that pilots are being taught to fly these technically advanced aircraft...specifically those with autopilots. Essentially, the modern C-172S pilot loads a flight plan in the box before takeoff, and as soon as possible after departure he or she couples the autopilot to the flight plan and spends the rest of the flight guiding the aircraft using the mechanical muscles of the autopilot servos and the silicon brains of the G-1000 suite. This is done with multiple button-pushes and knob-twists (and occasional throttle movement) and does not really involve touching the control yoke...except to make a radio call. While this is quite analogous to your everyday Part 121 airline operation, it doesn't really polish the physical skills and hand-eye coordination required to fly a less-technically advanced air machine like the **Fightin' Skywagon**. Further, when all the bells and whistles stop chiming and tweeting (US Air 1549 comes to mind) will the future pilot

be able to get back in the game and actually "fly" vs. "direct" the aircraft?

This argument is not new. I suspect folks decried the advent of the VOR system as "new-fangled" and unnecessary for any pilot who could fly the A-N range. **Jimmy Doolittle** probably discussed this issue with **Clyde Pangborn** and the boys when blind flying became actually do-able. Alas, we are destined to adapt to the new technology and, because of or in spite of the curmudgeons and luddites in the crowd there will remain (hopefully) a need to be able to safely and accurately hand-fly an aircraft for the foreseeable future. One day a youngster may be standing around **Erbman's Bearhawk** (on display at Pioneer Airpark at Oshkosh) and wonder aloud why there were so many windows in it...

Fly Safe and Check 6,

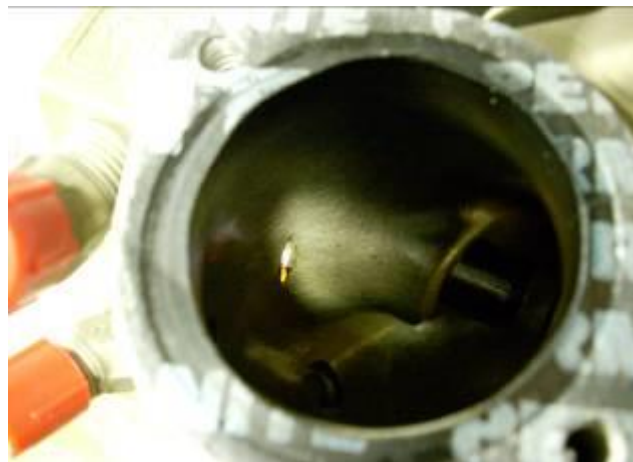
- **Gary Aldrich**
Kommanding

Cylinder Problems Abound

Russ:

You are not the only one with cylinder problems. I removed my cylinders back in August / September for inspection after 2,154 hours for possible rebuild. The shop said they were good and I PAID to have the rebuild with all new parts.

I did not like the way they were breaking in. After 11 hours, I had low compression on one cylinder (#3). Compression check was 46/80 with a leak out the exhaust. Borescope inspection showed a concentric ring around the valve and on as much of the seat as I could see. I pulled the cylinder. Found a HOLE in the intake port to the spring. Not Good. Put solvent in the head with valves closed and found a leak around the exhaust port. (between seat and head) Cylinder went back to the shop that did the work. They said to scrap all 4 cylinders. I have not gotten any money (paid \$3.2K) back from them after several phone calls. Small claims court next. I purchased four NEW ECI steel cylinders and paid overnight shipping (\$4K including shipping).



Hole (!) in Intake Port



Solvent inside cylinder head



Solvent escaping cylinder head around the exhaust valve seat

I did not take the bottom end apart because I know how it was put together. It was assembled to NEW limits with a crank that was -0.010 ". IF it is worn beyond limits, a new crank will be necessary. I do not want to know the answer but feel that since it was NEW limits I am in good shape. The cylinders had bore at NEW limits including choke. Only the EXHAUST guides were worn beyond limits in the old cylinders. Exhaust guide wear is typical in Lycoming parallel valve engines.

- Gary A. Sobek

Are You A YouTube Star?

Erbman (aka **Erbdude**) recently found a video shot at the April 2004 chapter meeting where he, with the assistance of **Knife** and other **PPOs**, showed you firsthand how to heat-form a wingtip lens from Plexiglas. After a little "reformatting for this screen" this video was published to YouTube in three installments. The first one starts at <http://www.youtube.com/watch?v=7ChaAOfnpFE>. The other two installments will appear in the "Related Videos" section.

Relive the memories of the Pusher Doofer Assembly (PDA) and the Reverse Vacuum Cooling Doofer. Note that the Plexiglas Paper Peeler Cadet **Lane Haubelt** is now a student at Test Pilot School.

New Member

With guys like **Vice Kommandant Scott "Stormy" Weathers** in our chapter, it surprising that we don't have everyone from the tri-state area flocking to join our chapter. At least one fellow who was exceptionally bright enough to realize that he should join up with us is **David Fournier**. David lives in Rosamond and works as an FTE for the C-17 test force. He lists his interests as "Glass cockpits, data collection/instrumentation, and electronic flight bags (EFBs)". He listed quite a string of aviation accomplishments, which we have reproduced here without editing in hopes that at least some of it might be true (and to fill white space):

Forum presenter, Oshkosh 1996, published researcher aviation human factors, FAA, worked with John + Martha King to develop general aviation personal minimums checklist, worked aircraft maintenance and aircraft parts for 5 years to help pay for college, worked line service for 3 years. Company test pilot for previous employer (ARINC) on USAF C-12C, C-12J, USN UC-12F, T-44 for class cockpit retrofits, instructor pilot for C-12C, C-12J, UC-12F, T-44, current proficiency in Collins Pro Line 21, Universal Avionics 890R series and UNS-1Ft FMS, Boeing/Pegasus 757/767/777 FMS, Comm/Multi/Inst/Beech 1900 type rating, 1300+ hours pilot, 250+ hours FTE.

Caudron Racer Flies At Flabob

Tom Wathen has just seen his latest replica fly. The Caudron racer from the golden era of air racing was completed by Mark Litsey and his Aerocraftsman team. It successfully flew Wednesday, January 28, 2009.

This is a replica of the C.460. One of the original C.460s was piloted by Michel Detroyat and won the Greve Trophy and Thompson Trophy at the 1936 National Air Races. Raymond Delmotte set a landplane speed record of 273 knots in 1934 flying a C.460.





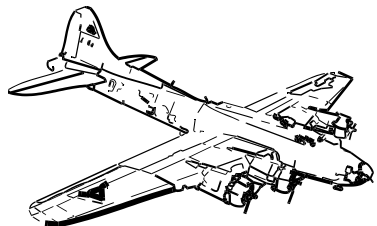
I couldn't find what type of engine powers the replica. The original had a Renault 456 of 300 HP.

See more pictures on the Chapter 1 website. www.eaach1.org.

Project Police Reevaluate The B-17

In December 2008, **Heroes of the Project Police George Daubner, Sean Elliott** and the crew of EAA's B-17G Flying Fortress *Aluminum Overcast* brought the **coolest aircraft ever to visit USAF TPS** back to once again humble a bunch of up-and-coming Test Pilots and Flight Test Engineers (plus a Flight Test Navigator or two).

Sensing an opportunity to peek behind the B-17 curtain to check for recent upgrades (and to verify that EAA is maintaining the proper high level of "way cool"-ness), **Project Police** operatives maneuvered to sneak their newest (but very highly qualified) aircraft evaluator **Lyn "Sweet Cheeks" McNeely** on board in the guise of a TPS Instructor.



Coolly maintaining the demeanor of a just-short-of-overly-excited TPS Instructor, Sweet Cheeks plays the charade of getting her Hero (Heroine?) Shot in front of the B-17



Sweet Cheeks saddles up next to copilot/instructor pilot for a brief flying qualities evaluation. As expected, she reported "It still flies like a truck."



From the Bombardier's seat, Sweet Cheeks declares "Victory!" over the infidels of R-2515

THE LEADING EDGE

Operation PECOS CRAYOLA

Charter Kommandant **Jim Piavis** has flown his first long cross country—from the Seattle WA area to Dallas TX. Why? To deliver his RV-7 to the shop where it will be painted, quite a bit like this:



*Jim's RV-7 (N3063P)
Builder: Jim Piavis
First Flight: 7 June 2008*



No, it's not a frame grab from *Casablanca*. This is a Beech 18 on the ramp at Jim's home airport at the time he had planned to depart. The fog seems to be an issue.



Passing by Mount Ranier



Overnight stop at Creswell Oregon



Jim attended UPT at Williams AFB 1990-1991. His old classroom is now a café. They saved the ceiling tiles the budding pilots decorated and display them as a wall.



Jim's RV-7 parked in the same spot where he used to walk to a T-37 18 years earlier



Dyess AFB, Abilene TX



The RV-7 parked happily at the paint shop at 52F

See lots more pictures and read the whole story at <http://adap.com/rv7/yalepaint2.htm>.

99's Poker Run Time Again!

ANTELOPE VALLEY 99s
19th Annual St. Patrick's Day
Poker Run Flight!
W.J. Fox Airfield in Lancaster



The Antelope Valley 99s will be holding their 19th Annual St. Patrick's Day Poker Run on 15 March 2009. That's right, the Ides of March—not a problem unless you are an Emperor. Evil Editor Zurg gave up that gig, so even he's not concerned.

There's something for everybody. If you have an airplane (or know someone who does) you can fly to Mojave, Tehachapi, Inyokern, Cal City, Rosamond, and Fox airports and pick up cards. You can fly to any subset of those airports. If you don't have an airplane, you can just go to Fox and draw a hand there. Everyone, whether you get a poker hand or not, can have a BBQ lunch.

If this sounds like fun, your best bet is to buy your tickets ahead of time so that they don't run out of food before you get there. If you got this newsletter by e-mail, look for the flyer that came with it. If not, go to <http://www.freewebs.com/av99s/> or call Elle at 661-256-4357 or Carol at 661-948-2478.

The 99s have been known to co-opt the services of the *Project Police's* Master Grillmeisters, so you know the food will be good.

EAA Experimenter Magazine Now Online

In an on-going effort to best serve its members, EAA is now publishing its newsletter specifically aimed at homebuilders online. To make sure that they send you a copy, go to <http://www.eaa.org/experimenter/issues/0901.html> and click the "Yes! Keep sending me Experimenter!" button. It doesn't cost you anything additional, but you do need to sign up.

Also be sure to check out <http://www.eaa.org/video/homebuilders.html>. EAA has been accumulating a LOT of very good how-to videos at this site, and they're adding more very quickly. You can imagine that Tony Bingelis would have been all over this if he had lived long enough for the technology to catch up.

Evil Editor Zurg's Caption Contest Result

Evil Editor Zurg has determined that you guys aren't a very creative lot. He expected to get a flood of outrageously funny captions for the following photo. Once again, you have amazed him with your ability to disappoint.



The one *Project Police Trooper* out there able to scrape together a response was **Murry Rozansky**, who submitted "Enough with this crap Lycoming. I'm putting a V-8 in the Yellow Petrel."



Web Site Update

As of 7 February 2009, the hit counter showed **125273**, 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.

Chapter 1000 Calendar

Feb 17: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 609-0942

Mar 3: EAA Chapter 49 Monthly Meeting, 7:00 p.m., General William J. Fox Field, Lancaster, CA. (661) 948-0646

Mar 10: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., High Cay, 4431 Knox Ave, Rosamond CA. (661) 609-0942

Mar 17: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 609-0942

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

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

Apr 21: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (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 16 (subject to change): Seventeenth Annual Scotty Horowitz Going Away Fly-In, Rosamond Skypark (L00), Rosamond CA. (661) 256-3806

May 19: No meeting. Go to Fly-In 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 25 – Aug 1: Bearhawk/Skywagon Deployment to OSH. Sign on now! (661) 609-0942 or (661) 256-3806

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.

Contact our officers by e-mail:
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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!

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

**C/O Russ Erb
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<http://www.eaa1000.av.org>**

ADDRESS SERVICE REQUESTED

**THIS MONTH'S HIGHLIGHTS:
 REGULAR MEETING 17 FEB @ TPS
 RAMPANT ENGINE CYLINDER VIRUS?
 B-17 QUAL EVAL RE-CHECK
 OPERATION PECOS CRAYOLA**



The Leader In Recreational Aviation