



THE LEADING EDGE

NEWSLETTER OF MUROC EAA CHAPTER 1000

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

President	Gary Aldrich	661-609-0942
Vice-President	Scott Weathers	661-317-9453
Secretary	Kent Troxel	661-947-2647
Treasurer	Doug Dodson	661-256-7276
Newsletter Editor	Russ Erb	661-256-3806

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

December 2008

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 *festivus*

Celebration

Tuesday, 16 December 2008
 1800 hrs (6:00 PM Civilian Time)
 Kommandant's Kwarters
 Quartz Hill, CA

Colleagues,

If you are a Druid, you may be preparing for the **Winter Solstice** on 21 Dec. Our Jewish friends may note that **Hanukah** begins at sundown on that day. The Christians among us are surely gearing up for **Christmas** on 25 Dec. **Kwanzaa** begins on 26 Dec. Perhaps one or more of these dates and holidays is of particular interest to you. I would like to call your attention to another notable date. If you are a **Millinial Chapterian** (and you are, or you wouldn't be getting this newsletter), please mark your calendar on **Tuesday, 16 Dec**. That is the day we raise the **Festivus Pole**, a simple unadorned aluminum pole to commemorate **Festivus**.

With the ever progressing commercialization of Festivus, there are commercial vendors who would gladly sell you a Festivus pole over the Internet. <http://www.festivuspoles.com>, for example, offers a beauty of a pole, extruded from 6063-T6, standing a full six feet tall. But take heart. We in Chapter 1000 already have a pole, a simple, hand crafted specimen that has already seen

us though several seasons. Please join us for the raising of the pole on 16 Dec at 1800 hours.

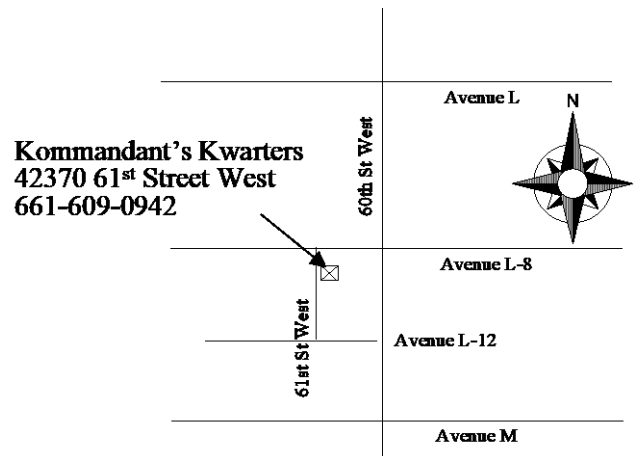
Once again, our beloved **Kommandant** and **Mrs. Kommandant** will host the gala event at their home at 42370 61st Street West in Lancaster. There will be the appropriate delectable **Festivus** feast and goodies. We will have the airing of grievances. We may forego the "Feats of Strength" as we have in the past.

But, we ***will*** have the "**Kommandant's Krap**" gift exchange. So, bring a wrapped gift if you would like to participate. **Mrs. Kommandant** has suggested something from **Nordstrom's**, but I am not aware of an aviation section there. So, bring something you'd like to give away - perhaps something you got last year. An aviation themed gift is intriguing but not required. As always, participation in the gift/re-gift is not required, but **ridicule of the non-participants is**.

The evening may culminate in the annual chasing of **Pixel, FDOC** (First Dog Of the Chapter). So, dress up in your holiday garb (no reindeer costumes (or other doomed aircraft), please) and join us as we celebrate "**Festivus for the Rest of Us.**"



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



Last Month's Meeting

EAA Chapter 1000

USAF Test Pilot School

Edwards AFB CA

12, 18 November 2008

Scott "Stormy" Weathers, Presiding

November was another "Twofer" as C1000 hosted two BBQ's for visiting USAF Academy cadet seniors enrolled in Aeronautical Engineering 456. During the course they learn flight test techniques and apply them as Flight Test Engineers in four T-41D flights. The capstone event is to come to Edwards for a flight in the T-38 to collect flight test data. Former academy instructor **Russ "Erbdude" Erb** advises that they take the collected data back to USAFA with them to write a report and give a briefing in which they make the same conclusions that every group of cadets that has been through this class have made for the last 20 years, demonstrating that tradition is highly valued at the Academy.

A total of 17 people attended the 12 November BBQ which included 7 cadets and their instructor **Lt Col Mike Chapa**. **Doug and Gail Dodson** once again opened their high desert estate "High Cay" for the festivities. **George "Knife" Gennuso, Master Grillmeister and Kent "Cobra" Troxel, Senior Grillmeister** attended to grill duties.

There was a tense moment as they tinkered with Doug's gas grill in an attempt to light it. The **fireball** was detected by orbiting satellites and briefly interpreted as a tactical nuke until verified as simply two C1000 idiots at work. **Knife's** eyebrows are growing back nicely.

Over 20 people attended the 18 November session, which included the second set of seven cadets and **Mike Chapa**. While both evenings were examples of signature Southern California weather, this was the pick of the two. **Gail Dodson** was back from business travel and was able to do a superior job of provisioning the food (we actually had fresh lettuce, pickles and onions this time as opposed to a limited selection of "bottled condiments" for the first night). Things always seem to go better when **Gail** handles the logistics, although we received no complaints from the cadets.

Vice Kommandant "Stormy" Weathers oversaw the latter event as **Kommandant Aldrich** was TDY on important government business. Exactly who was in charge of the first event is a bit fuzzy as I'm still recovering from the fireball. My hearing is starting to come back and the blurred vision is almost gone. The doctors say I'll be fine by the December meeting, which is **Festivus**, the highlight of the C1000 social season. Hope to see you there.

- **Kent "Cobra" Troxel**
Minister of Propaganda

Kommandant's Korner

The holiday season is upon us once again! **Christmas, Hanukah, Festivus, Kwanzaa**, etc, etc. The **Aldrich** clan survived



another attack of the Tryptophan monster last week when we gathered for Thanksgiving. That holiday gathering also afforded an opportunity for an "operationally representative" qualitative evaluation of the new **GPSMap 696** that is nestled into the right side of the **Fightin' Skywagon's** instrument panel.



I had volunteered to fly up to Livermore (KLVK) airport on Thanksgiving eve to retrieve daughter number two and her hubby. That's about 250 nm as the **VC-180** flies. Unfortunately, Wednesday brought a winter storm to California with rain, widely scattered thundershowers, and low ceilings. Fortunately, the winds accompanying the storm were uncharacteristically light and the tropical source of the moisture meant that the freezing level remained reasonably high. When I arrived at the hangar around 1530 the Tehachapis were obscured with dark and foreboding clouds and there were rain showers in the area. I had filed an IFR flight plan that would take me up the east side of the San Joaquin Valley to take advantage both of the lower minimum enroute altitudes (MEA) and the slightly less nasty weather that hugged the coastline and coastal ranges. I launched off in visual conditions and turned toward **PMD** to capture my filed route and climb to my 9000 foot assigned altitude.



There was light rain in the clouds and once over the eastern edge of the Tehachapi pass, enroute to Shafter VOR (EHF) I started to accumulate light mixed icing on the leading edges of the struts and wings. The outside air

temperature was hovering around 0 to -1 degrees Celsius and I immediately requested lower altitude when available from Bakersfield Approach. They reported that I could not go lower for about another 15 miles so I sat nervously watching the accumulation and rotating through the weather pages on the 696. The NEXRAD page clearly showed the rain shower I was flying through as a green blob...the color indicating light precipitation. The freezing level prediction graphic closely matched reality and indicated I would only have to descend a couple of thousand feet to find warmer (ice-free) air. The “echo tops” display showed that if necessary I could probably top the overcast at 11,000 feet. The best news was shown on the winds aloft page that I was being pushed by a significant tailwind. This was verified by the 150 KGS readout on the GPS...ensuring that I could cover the remaining miles to lower altitude in less time.



In what seemed like an eternity, but was only a few minutes, Bakersfield cleared me to 6000 feet. I gratefully complied and soon shed the 1/8 inch ice coating. I settled in for the remaining 2 hour flight, immersed in clouds that made seeing the wingtips a chore and passing through the occasional “green blob” of rain. The weather displays on the 696 afforded excellent situation awareness and relieved me from having to bug the radar controllers or Flight Watch about what lay ahead.



Approaching my destination, I selected the “WPT” page that offered a plethora of detail on Livermore. This included the standard A/FM information as well as AOPA

info on lodging, food, rental cars, etc, graphics of all the IFR approach charts and airport diagrams, and, of course the current METAR info. Thus, I was able to determine the weather conditions, airport layout, frequencies, and the optimum approach to load into the GNS 530 flight plan. NORCAL Approach vectored me for the ILS to runway 25R. I broke out of the overcast at 600 feet with 4 miles remaining and the STEC 50 autopilot had me lined up flawlessly. I had the approach plate graphic up on the big 696 screen and found that I didn't miss having the paper copy on my lap. The zoom function on the FliteChart™ page allowed me to review the minimums and missed approach procedure and quickly snap back to the full page view.

On roll-out on the rain-soaked runway I flipped back to the map page to find a little picture of the Skywagon tracking on a detailed chart of the airport...complete with taxiway identifiers. This is the “Safe Taxi™” feature and I can easily see how it could make navigating around a complex airport much less anxious. I used the AOPA information to request progressive taxi to the on-airport restaurant where I met my passengers for the return trip.

Emboldened by the incredible SA afforded by the Garmin technology and XM Weather, we launched back into the clag for the return trip at 5000 feet. The “echo tops” page indicated that I could probably top the overcast at 9000 feet, but I elected to keep the airplane in the warm air as long as possible in case the Tehachapi pass required another dash through the icing. This meant that the “scenic view” consisted mainly of watching the rhythmic glow of the flashing beacon on the wing struts and listening to the “sizzling grease” sound of the rain on the windshield. Fortunately, by the time we passed Bakersfield the 696 was indicating no rain and temperatures at our newly assigned 9000 foot altitude were absolutely stifling at 2 degrees C. We slipped through the pass with nary a trace of frost and quickly descended into the Antelope Valley where we broke into the clear at 6000 feet.

As nasty as the weather was on that trip, the return mission on Sunday was beautiful...crisp, clear air, light winds, a gorgeous sunset. The 696 sat patiently by, ready to dispense SA as needed. The benign weather and quiet ATC frequency would have been a great time to explore the 150 channels of XM Radio...had I sprung for the extra \$6.95 a month. Instead, I dug out the trusty iPod and listened to tunes as the big Continental hummed along in the front room. I spent part of the solo return trip exploring more features of the magic box and tweaking the customizable displays so that the next time it is called into service it will provide even more easily digested information.

Hey! Don't forget...**Festivus** is coming and you'll need to complete your shopping for the **Kommandant's Krap Exchange**. See you soon at the **Aldrich** abode.

Fly safe, check 6!

- **Gary Aldrich**
Kommanding

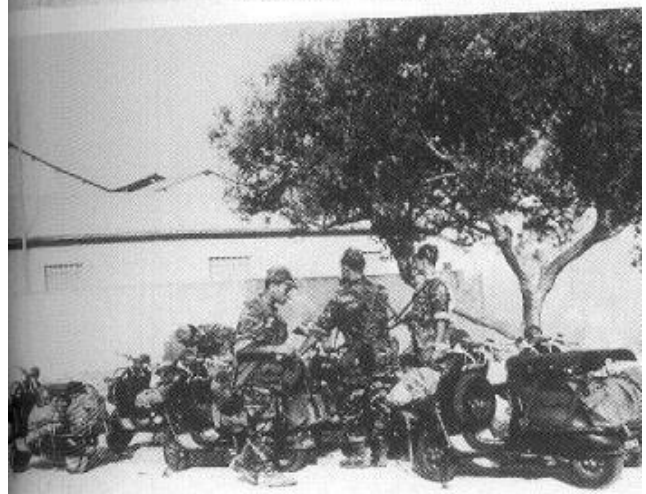
THE LEADING EDGE

It's the Work of the French Military!

(Cobra finds the weirdest things floating around the Interwebs...)

So, what's the most unusual military vehicle you can think of? Maybe the Japanese airplane-launching submarine of WW2? Or perhaps the Soviet attempts to build a flying tank? Or perhaps the 1000 ton rolling fortress the Germans tried to build in WW2? All quite odd, I agree, but barely made it past the drawing boards. For us, the oddest is a **scooter armed with a 75mm cannon**.

After World War II, there was little money for defense spending while the nations of Europe rebuilt their industry and society. When there was some cash to spend, one had to be creative to stretch it as far as possible. The French probably accomplished the most astounding example of that with the **ACMA Troupes Aéro Portées Mle. 56**. Deployed with their airborne forces, this was essentially a militarized Vespa scooter outfitted with a 75mm recoilless rifle. Five parachutes would carry the two-man gun crew, weapon, ammunition, and two scooters safely to earth, and the men would load the weapon on one scooter and the ammo on the other, then ride away. More impressively, the recoilless rifle could be fired effectively on the move by the best of the gun crews. Total cost? About \$500 for the scooter and the recoilless rifle was war surplus. Were they successful military machines? Well, the French Army deployed about 800 armed scooters in wars conducted in both Algeria and Indochina.





Bockscar Cylinder

Readers might be interested in an item we are trying to research up here in Big Bear.

The story is that after Bockscar, the B-29 that dropped on Nagasaki, returned to base, scientists wanted to determine whether there was any damage to the engines from nuclear blast/radiation.

The engines were disassembled and metallurgically checked with no obvious damage. The engines were then reassembled with many new parts and old parts (one flight) were kept for future study.

One of the crew members (name unknown), obtained a cylinder and brought it home to LA area. He kept it for 40+ years and retired to Big Bear where he brought the cylinder. When his health deteriorated, he passed cylinder to someone who ended up throwing it away in our local garbage dump around 6 yrs ago. The dump man realized the possible value to airplane guys, rescued the cylinder and gave it to my friend Russ.

The cylinder is in perfect condition and still has Cosmoline protecting a steel cylinder sleeve and steel valves. We have been admiring it for several years now at our airport.

I am trying to determine whether this was an actual cylinder from Bockscar by contacting the AF Museum at Dayton and Smithsonian. Smithsonian said they have no records on it so I'm hoping Dayton will as Bockscar is on display there.

The quality of the casting fins is superb on it and the rocker arms have rollers. I'm not sure we could make one as good today.

- Bob Hartunian

More on Sandblasting

Your newsletter article on sandblasting omitted one of the best uses of "grit blasting"—as a surface preparation for composites prior to bonding.

In fact, it provides just about the strongest bond surface for a carbon or glass laminate. The trouble is that it's easy to blast too aggressively which can abrade away plies.

The grit is normally a garnet with a mesh size around 80-100 and is blasted at reduced pressures of 40-50 psi. On a composite part, you try to keep the nozzle far enough away to just kiss the surface with grit and remove the glossy finish without removing much of the top ply. It takes an operator with a light touch to prevent damage, so the process is seldom used in composite production. But if you are looking for the best prep for adhesive bonding, grit blasting correctly done is hard to beat.

- Bob Hartunian

Why Is My Newsletter So Short?

According to Evil Editor Zurg, it's because he hasn't yet received that great article you were going to write for the newsletter!



Another reason is that with a successful completion of Operation PHOENIX NOISEMAKER, Stormy's Big White Ford completed the homecoming journey of the Three Sigma engine. You will note that there's still some more work to do to make it actually run.



Additionally, all repairs required from the ignominious ground loop have been completed. The wing tip was sent back to the original manufacturer (Knife). The replacement trim tab pushrods and the tail wheel assembly have been painted.

Besides, you probably need this extra time to do your Festivus shopping. Erbman's done his, so he'll be at the hangar.

Web Site Update

As of 6 December 2008, the hit counter showed 124288, for a hit rate of 14 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

Dec 16: EAA Chapter 1000 Festivus Etc Celebration, 6:00 p.m., Kommandant's Kwarters. Quartz Hill CA. (661) 609-0942

Jan 6: EAA Chapter 49 Monthly Meeting, 7:00 p.m., General William J. Fox Field, Lancaster, CA. (661) 948-0646

Jan 13: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., High Cay, 4431 Knox Ave, Rosamond CA. (661) 609-0942

Jan 20: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 609-0942

Feb 3: No EAA Chapter 49 Monthly Meeting

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

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

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

Apr TBD: B-17 *Aluminum Overcast* hosted by EAA Chapter 1000, General William J. Fox Field, Lancaster, CA. (661) 317-9453

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

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: 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

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:

President/Flight Advisor Gary Aldrich: gary.aldrich@pobox.com

Vice President Scott Weathers: flynw@pobox.com

Secretary Kent Troxel: kenttroxel@sbcglobal.net

Treasurer Doug Dodson: houdou@pobox.com

Technical Counselors: Gary Sobek Gary@rvdar.com

Bill Irvine wgirvine@yahoo.com

EAA Chapter 1000 Technical Assistants

<i>Composite Construction</i>		
Doug Dodson	douglas.dodson@pobox.com	661-256-7276
George Gennuso	pulsarl1@sbcglobal.net	661-265-0333
Brian Martinez	brianmmartinez@aol.com	661-943-5379
Bob Waldmiller	waldmmlr@qnet.com	661-256-0932
<i>Wood Construction</i>		
Bob Waldmiller	waldmmlr@qnet.com	661-256-0932
<i>Aluminum Sheet Metal Construction</i>		
Bill Irvine	wgirvine@yahoo.com	661-948-9310
Miles Bowen	cessna170bdriver@yahoo.com	661-822-0806
Russ Erb	erbman@pobox.com	661-256-3806
<i>Welding/Welded Steel Tube Construction</i>		
Russ Erb	erbman@pobox.com	661-256-3806
<i>Engine Installation</i>		
Bob Waldmiller	waldmmlr@qnet.com	661-256-0932
Doug Dodson	douglas.dodson@pobox.com	661-256-7276
<i>Electrical Systems</i>		
Miles Bowen	cessna170bdriver@yahoo.com	661-822-0806
<i>Instrumentation and avionics requirements for VFR/IFR</i>		
Gary Aldrich	gary.aldrich@pobox.com	661-609-0942

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
3435 Desert Cloud Ave
Rosamond CA 93560-7692
<http://www.eaa1000.av.org>**

ADDRESS SERVICE REQUESTED

**THIS MONTH'S HIGHLIGHTS:
FESTIVUS 16 DEC @ KOMMANDANT'S
GARMIN 696 OT REPORT
PROJECT POLICE SCOOTER MOD?
FAMOUS AIRPLANE PARTS AT L35?**



The Leader In Recreational Aviation