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	*George Gennuso*	*661-265-0333*
Secretary	*Kent Troxel*	*661-947-2647*
Treasurer	*Doug Dodson*	*661-256-7276*
Newsletter Editor	*Russ Erb*	*661-256-3806*

http://www.eaa1000.av.org *August 2006*

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:

Base-sa-Ball Meeting

Tuesday, 22 August 2006
1830 hrs (6:30 PM Civilian Time)
(Game starts at 1900)
Clear Channel Stadium nee The Hangar
Lancaster, CA

Hello again sports fan. It's August and in August we usually have the Chapter meeting at the TPS. But, hang onto your hats, cuz I'm getting ready to throw you a curve ball. We're going to have a baseball meeting like we did way back in May of 2004 and July of 2005!

OK, stop yelling and screaming like a bunch of schoolgirls, because the next bit of information is important. **The meeting will be on the 4th Tuesday of the month**, not the 3rd Tuesday of the month like it normally is. That date would be **22 AUG 2006**. OK, got that? Good, now I can go on.

The **Kommandant** was in rare form this month and managed to influence the city fathers (with **Anne's** help) into giving us some box seats to the Jethawks baseball game. Now, listen up because this might get complicated for some of you out there. Here is how you get your tickets for the game. The **Kommandant**, or one of his minions, will be strategically located under the F-18 on a stick in front of Jethawk stadium before the game with the tickets. You will stroll up to the Kommandant and give him the chapter handshake while saying "**nuclear is spelled with 2 r's**" where upon the **Kommandant** will reply "**is that supposed to be some kind of code?**". He will then give you a ticket for the game. The game starts at 1900 hours so don't be late because the **Kommandant** wants to watch the game with the rest of us, not stand around waiting for you to show up.

Now, in the event that you are unavoidable late because (supply your own excuse) you still may be able to attend the festivities. Here's what you do. Call the Kommandant on his cell phone (661-609-0942) and if any tickets are left we will run one down to you. Once again, another thrill packed evening brought to you by your local EAA Chapter 1000 staff.

Oh, by the way, I'll bring the chocolate chip cookies if I can get them by security.

- George "Knife" Gennuso
Vice Kommandant

Last Month's Non-Meeting

EAA Chapter 1000
Not at Scobee Auditorium
or the USAF Test Pilot School, Edwards AFB CA
18 July 2006
Gary Aldrich, goofing off in Colorado

It was a Seinfeld episode. A meeting about nothing. As such, no one attended. There. What a fascinating account. Kind of makes you wish you weren't there, along with everyone else who did not attend.

- Kent "Cobra" Troxel
Minister of Propaganda

Kommandant's Korner

LSA or VLJ? Are one or both of these acronyms the future of general and/or sport aviation? You'd think so if you had walked the grounds of Wittman Field last week as I did. The Light Sport Aircraft (LSA) flocked together near the Homebuilt Cafe and basked in the hot sun and high humidity while the Very Light Jets (VLJ) reclined in air-conditioned tents with drool-resistant carpets. The LSAs definitely showed their Ultralight heritage while it was also obvious that the early days of general aviation craft played in their development. The industry/ government attempt to create renewed interest in general aviation is in full swing. The goals to make aviation affordable and easier to enter by "every man" are the same as those that brought us the Recreational Pilot Certificate

in the 1980s. That idea addressed only the issues of the high cost and technical complexities of becoming a pilot and ignored the fact that the new Rec Pilot would be flying aircraft that had more capabilities than he or she was allowed to use. The LSA premise is a pairing of limited pilot privileges with aircraft capabilities that match.

I was drawn to one entry in the class, the Legend Cub "Special". This aircraft was based on a classic design from Piper that was produced for essentially one year…1947. The original "Special" was an attempt by Piper to cater to the expected post-war pilot boom with an airplane that was a bit more refined than the ubiquitous Cub. The Special had a sleek (for its day) closed cowl over a 65 or 75 hp Continental. The fuel tank was moved from the boot cowl to the right wing root, allowing a shift in center of gravity that put the PIC seat in the front, rather than behind the passenger. The 47-model had no electrical system and only the most basic instruments. When I was 18 I took my initial flight training in a Cub Special (N4769M). It was a terrific teaching platform and will always have a spot on my favorite airplane list.

The new Special sports a 100 hp engine and two wing tanks with a full electrical system. It can be had with a panel mounted Garmin 496 GPS with XM weather and music as well as a Dynon "glass cockpit" for display of flight and engine stuff. All this for an airplane that my wife and I would over-gross…even without Pixel on board…and could travel at the blistering speed of 100 mph or so. This resurrection of 1947 technology married to the microprocessor will set you back about $130K….about what you'd pay for a well-equipped late-model Cessna 182 on the used market. I can't help thinking that the manufacturers may be diverging from the target here.

"Honey I shrunk the jet!" What about the VLJs? It seems the industry is targeting the piston-twin and/or turboprop single market with this new class of simplified kerosene burners. The miniaturization of the turbojet/turbofan engine over the last couple of decades has supported this new class of classy transportation. It's not exactly clear (to me, anyway) whether they are trying to sell to "owner-pilots" or to non-pilots who don't have a need for transporting the whole boardroom and only want to pay the salary for one pilot. At any rate, they are all being certified for single-pilot operations. I suspect the increase in speed, coupled with the complexity of operating in the same airspace with the "big boys" will drive the pilot requirements for re-currency training and skill well beyond the normal general aviation pilot. Like the LSAs, the VLJs will bring sticker shock to those who thought that smaller would be cheaper…unless of course you compare them to, say, a Gulfstream V with a price tag around $45M. My cursory review of this new segment of aviation has made the VC-180 even more secure in its hangar.

Speaking of the "hangar". It's baseball time again, so we'll see you at the Clear Channel stadium (nee the "Hangar") this month (**a week later than usual**) to watch the Jethawks from the air-conditioned comfort of the Skybox. Please shoot me an email if you intend to come so I have an idea of how many tickets I need to have. As usual, I will be lurking around the F-18 "plane-cicle" in front of the stadium before the game to give you your

tickets. And, of course, I will be monitoring my cell phone.

Fly safe and check 6

- Gary Aldrich
Kommanding

PPO Vance Jaqua's Final Flight

1929-2006 Husband, Father, Aerospace Engineer and Artist

From http://www.geocities.com/vjaqua :

"On Tuesday, June 27th, 2006 Vance Jaqua lost his battle with Leukemia. His wife, Emily Jaqua, lost her battle with Lung Cancer, just 31 hours earlier."

Vance was a consulting engineer to Rich Trickel at Tri-R Technologies while developing the KIS and KIS Cruiser. He was named an honorary member of EAA Chapter 1000, and shortly thereafter insisted on being a full-up member by sending in his dues check.

From the June 1999 ***Leading Edge***:

Vance Jaqua brought his latest creation from Tri-R Technologies. The non-flightworthy, non-lethal vulcan cannon is his latest device for catching the attention of the passing fly-in public long enough to convince them to buy a KIS kitplane. As reported in last month's newsletter, the barrels spin, and empty shells are ejected. Really cool. Non-VMC weather kept the full-size line of KIS aircraft on the ground in Camarillo, so Vance brought out the backup display aircraft, a Piper Cub rocking plane. It was parked in the Young Fledglings section, next to **Russ Erb's Pedal Pitts**. Russ claims the Pedal Pitts is a show plane, because the only time it seems to come out of its hangar is to go to air shows! If the kids would learn to steer, maybe it would see more use.

Recipient of the award for Longest Distance Traveled in a Propeller Driven Aircraft went to **Ed Dutreaux** of EAA Chapter 1000 Det 11, San Carlos CA. Ed was very interested in Vance's creation. Discovering that the Jaqua

Minigun mounts to a standard tie-down ring, Ed requested a fit check on his RV-4 N444ED.

Here we see the mounted minigun, redesignating the aircraft as the ARV-4. Watch for a MPEG movie of the minigun in action on the Chapter Web Site soon!

That movie can be seen at http://www.eaa1000.av.org/newsletr/mvc-002v.mpg .

Vance's sons are maintaining his web site at http://www.geocities.com/vjaqua/ as a memorial and a depository for his many interesting writings.

Hey! Where's My Oshkosh Report?

Well, you're going to have to wait a couple of months for that. **Evil Editor Zurg's** editorial policy is that the newsletter account of the big AirVenture convention will not precede the official meeting presentation. Since that's been pushed off until September, you'll just have to wait until your October edition of ***The Leading Edge***.

That's "Doctor" Mom To You!

***PPO* Chris "Mom" Shearer** has finally finished his PhD at the University of Michigan. In his own words:

"To all

This is to announce that I have passed my defense with minor corrections to the dissertation. All the corrections and other administrative duties will be complete by the end of August.

Cheers

Dr. "Mom" Shearer"

No word on the status of the **Acroduster**...

Just How Much Drag Does That Antenna Have?

From the aerolectric list on Matronics:

From my calculations at 200 MPH the drag penalties are:

ELT = 1/8 to 3/16 mph MAX
COM = 0.25 to 0.30 mph MAX
Transponder = 0.06 to 0.10 mph MAX

Total is less than 2/3 mph.

The above are from my own calculations. I dusted off my mechanical pencil and aerodynamics book (yes I was an engineer for a large aircraft manufacture at one time.)

To back up my numbers here is a quote:

****

"There is a recent article in Plane & Pilot which features the Socata Trinidad. Interesting enough, the engineers at Socata actually quantified the cruise speed impact of each antenna:"

ADF - .75 knots
G/S - .32 knots
VOR - .59 knots
ELT - .16 knots

****

This is for a Aerospatiale-Socata TB-20 with a listed 184 mph cruise and 192 mph top speed so these drag penalties are equivalent for a fast amateur built experimental aircraft.

If you assume 1/2 of a VOR is about equal to a COM than 0.25 to 0.30 mph drag at 200 mph is reasonable. The ELT is almost exactly what I calculated.

The exaggerated rumors and urban legend of antenna drag are probably spread by people who want you to use wing tip antennas, which perform poorly. Not to mention the long (heavy) coax runs that result in more signal loss. The wing tip antennas also are more troublesome to install.

For all you racers and go fast guys, here is an idea that worked for me very well for years on my RV-4. I made it so I could remove the belly COM and VOR antenna in a matter of minutes. I would replace the COM with an antenna in the cockpit for races and performance contest. The VOR was also on the belly under the horizontal stabilizer. With nut plates it came off with two screws and the coax was secured inside the fuselage with a lanyard and then the hole was taped over. To put them back on took as long as it took to remove, a few minutes. If you want to pick up the 2/3 to 3/4 MPH, it's an idea.

Cheers George RV-4/RV-7

Official *Project Police* Tool Dictionary

1) DRILL PRESS: A tall upright machine tool useful for snatching metal stock out of your hands, smacking you in the chest and flinging your beer across the room, splattering beer on freshly painted parts.

2) WIRE WHEEL: Cleans paint off bolts, then throws bolt somewhere under workbench at the speed of light.
Also removes fingerprint whorls and hard-earned guitar calluses in about the time it takes to say, "SH*T!!!"

3) ELECTRIC HAND DRILL: Normally used for spinning pop rivets in their holes until you die of old age.

4) PLIERS: Used to quickly and efficiently round off hexagonal bolt heads.

5) HACKSAW: One of a family of cutting tools designed on the Ouija board principle: transforms human energy into crooked, unpredictable motion. The more you attempt to influence its course, the more dismal your future becomes.

6) VISE GRIPS: Also used to round off bolt heads. When nothing else is available, may be used as a medium for heat transfer from a welding torch to the palm of your hand.

7) OXYACETYLENE TORCH: Used almost entirely for setting random objects in your shop on fire. Also handy for igniting residual grease inside of wheel hubs you're trying to get bearing races out of.

8) WHITWORTH SOCKETS: Once used for working on older British cars and motorcycles, they are now used mainly for impersonating 9/16" or 1/2" sockets you've been searching for the last 15 minutes.

9) HYDRAULIC FLOOR JACK: Used for lowering automobiles to the ground after installation of new brake pads, trapping the jack handle firmly under the bumper.

10) 8' DOUGLAS FIR 4x4: Used to attempt to lever automobiles off of hydraulic jack handles.

11) TWEEZERS: A tool for removing wood splinters, especially Douglas Fir.

12) TELEPHONE: Tool for calling neighbors when searching for additional hydraulic floor jacks.

13) SNAP-ON GASKET SCRAPER: Theoretically may be used as a culinary tool for spreading mayonnaise, but used mainly for removing dog feces from boots.

14) E-Z OUT BOLT & STUD EXTRACTOR: A family of tools designed to snap off in bolt holes and is ten times harder than any known drill bit.

15) 2 TON HYDRAULIC ENGINE HOIST: A handy tool for testing the tensile strength of bolts and fuel lines you forgot to disconnect.

16) CRAFTSMAN 1/2" x 16" SCREWDRIVER: A large motor mount prying tool that inexplicably has an accurately machined screwdriver tip on the end without the handle.

17) AVIATION METAL SHEARS or TIN SNIPS: See hacksaw.

18) TROUBLE LIGHT: The home builder's tanning booth. Sometimes called a drop light, it is a good source of vitamin D, "the sunshine vitamin," which is not otherwise found under cars at night. Health benefits aside, its main purpose is to consume 40-watt light bulbs at roughly the same rate as 105-mm howitzer shells were used during the Battle of the Bulge. More often dark than light, the name is somewhat misleading.

19) PHILLIPS SCREWDRIVER: Originally used to stab the lids of old-style paper/tin oil cans and squirt oil on your shirt; also be used to round off the interiors of Phillips screw heads.

20) AIR COMPRESSOR: A noisy machine which uses electrical energy produced by distant coal-burning power plants and transforms it into compressed air which travels by hose to a pneumatic impact wrench that grips rusty bolts last tightened 70 years ago by someone at Ford, and rounds them off.

21) PRY BAR: A tool used to crumple metal surrounding clips/brackets you needed to remove in order to replace a 50 cent part.

22) HOSE CUTTER: A tool used to cut raw hose stock 1/2" too short.

23) HAMMER: Originally a weapon of war, the hammer is nowadays used as a kind of divining rod for locating expensive parts in close proximity to objects we are trying to hit.

24) MECHANIC'S KNIFE: Used to slice through contents of cardboard boxes delivered to your home/shop; works extremely well on boxes containing upholstered items, chrome-plated metal, plastic parts and the other hand not holding the knife.

Online Sectionals For Reference

Ever want to just look at somewhere on a Sectional chart but not necessarily fly there right now, so you don't want to fork out the $6.25 to http://www.vrotate.com ? Then go to http://skyvector.com to view Sectional charts online. Very cool for that quick look at an area. Many airports have little circles over them that can be clicked for more information on the airport. You can also enter a 3-letter identifier for an airport/VOR/fix and it will jump to that chart. Very, very cool!

While you're at it, here are a couple of other cool online tools. Try http://gc.kls2.com , a great circle mapper. If you like to do the calculations yourself, try http://www.movable-type.co.uk/scripts/LatLong.html for a couple of algorithms for calculating great circle distance.

Bill Grahn Gives Up On Rudder Pedals

We're not sure when it happened, but ***PPO*** **Bill Grahn** changed airplanes to a 1946 Ercoupe, looking amazingly like this photo he provided:

I seem to remember looking at this airplane at the most recent **Scotty Horowitz Going Away Fly-In** and found it to be suitably devoid of rudder pedals.

I wonder if **Bill** has considered contacting **Test Pilot School** about using this airplane as a **Qualitative Evaluation** aircraft...it would be interesting to see what the test pilots would say about the flying qualities and spin

resistance of the two-control aircraft. Of course, the **F-16** and **F-18** pilots probably won't think there is anything out of the ordinary about this aircraft.

EAA Chapter 1000 Standardized Work Tables in Alabama

Every now and then we receive word from folks who have built the EAA Chapter 1000 Standardized Work Tables. Strangely, most of them can't seem to leave well enough alone, and they feel obligated to make "improvements". Of all of the changes I've seen so far, I've yet to see any that I really considered an improvement over the original **Waldmiller/Howell** design.

A builder in Alabama built a set of almost standard tables, and seems very pleased with them. He writes:

"Russ & Bob,

Thank you for publishing your EAA Chapter 1000 Standardized Work Table plans. I successfully used them to create 4 of my own very nice tables. They will bear my new Quickie 2 project :O) By the way, it cost $200 for 4 tables worth of supplies at home depot if you want to update your figures.

Thanks again!

Russ Meyerriecks

Huntsville, AL"

Left Seat vs. Right Seat - Why? Some Hypotheses

Why is the airplane pilot in the left seat and the helicopter pilot in the right seat? Maybe someone really knows, but here goes plausible explanations.

As far as the helicopter pilot being on the right hand side this is what I remember old time Bell Helicopter engineers telling me 50 years ago and a little rationale on my part.

The single place experimental helicopter had the collective for the left hand and the cyclic in the right. The collective also had the throttle twist grip.

The throttle twists the same direction as motorcycles (counter clockwise for power). This works well with the left hand because the power has to be increased as the collective is pulled up. (Human factors/engineering.) If you don't believe me, try using the right hand adding power while lifting.

Presumably the right hand was used for the cyclic because that was the most difficult to hang onto because of control feedback. Three other factors; (1) right handed pilots, (2) fighter test pilots (at Bell) were used to the stick in the right hand and throttle/mixture control in the left hand, and (3) dexterity needed to control the forward and lateral movement of the helicopter.

When Bell started to train pilots, weight was crucial in the early Model 47. They had two cyclic sticks but had only one collective stick in between the instructor and the student. The student was in the right hand seat so he could have the standard configuration cyclic stick in the right hand and throttle in the left hand.

Presumably the instructor pilot was sufficiently skilled to use opposite hands. Actually the instructor probably was not too concerned about the collective and he still used his right hand on the stick if necessary.

Also, in the early days of the helicopter, control force feedback was a definite problem. The cyclic stick was the worst shaker. To operate the radio and or correct the altimeter setting required using a hand. The collective stick could be locked with friction and leave the left hand free.

But now why were the transport command pilot in the left seat and the copilot in the right?

Could it have been that the auto drivers were seated that way? Stage coach drivers were on the left.

Did Glenn Curtiss start it with the first passengers seated on his right? Was that due to engine torque?

Pictures of chariot drivers are sometimes shown on the right side. Was this the artist's decision or did it have historical backing like the distance between railroad rails being the same as between Roman chariots' wheels (the width of the rear of 2 Roman horses).

In a "Digging for Truth" program on the History Channel there was a scene with a historically accurate reproduction of a late Bronze Age Greek Chariot. The driver was on the left and the Archeologist host with bow and arrow were on the right. The host is right handed with the bow string in his right hand.

Then again there is the fact that old time Railroad Engineers looked out the right hand side of the cab and had the throttle in his left hand! Was that necessary because of

the smoke and soot as the approaching train passed on the left?

What is your version of Right Hand vs. Left Hand Seat.?

Ain't history interesting when it was not recorded for us to use in the future?

- **Lee H. Erb**, aka **Erb the Elder**
Det 5, Arlington, TX

Project Police Aircraft Spotters Quiz

Last month, **Evil Editor Zurg** published a photo of a unique aircraft for you to identify. This picture was supplied by Bearhawker **Benton Holzwarth** of EAA Chapter 105, Portland OR. We didn't tell you that last month because you might have known that EAA Chapter 105 is the home EAA Chapter of **Richard "Van" Vangrunsven**, which would have made identifying the airplane WAY too easy.

First, the photo you were provided:

First to identify was PPO Nathan Davis with "Sort of like Van's Playboy that he put a cantilever wing on and was the inspiration for the RV-3 series... but just guessing." When pressed to be more specific, he said "dang, how about RV-1, again a WAG." which was, of course, correct.

Next in was from **Murry Rosanski**, ***PPO***, glider pilot, and KITPLANES writer, who said "Hi, I think it is the first RV, a re-winged Stits Playmate modified by Van. Yours, Murry"

From our extended reach came "The plane is an RV1, heres a write up on it in another chapters newsletter.

http://www.eaachapter135.org/Images/newsletters/2006-02.pdf, Mark Beattie, EAA Chapter 494, Corona, CA."

Finally, the definitive story from **Benton**:

"Jack Lenhardt (Lenhardt Airpark, OR -- 7S9) bought it a couple weeks ago. He's just tickled that not even Aurora (home of Van's factory and 3 miles north) can claim more different models of RVs than Lenhardt's! Jack's quite a character and a really nice guy; commissioned (horse-traded) a replica Bleriot that he intends to fly.

Geoff W mentioned he'd seen it on eBay. Yes, it's the RV-1. It started as a Stits Playboy (dunno if Dick bought it or built it) but he was dissatisfied with the performance and thought he could make it better. Swapped in his own wing design, cowl and canopy.

It runs an O-290D of 125 HP. Jack says it flies a lot like a -3, except not as fast."

Now we can show you some other photos of this historical aircraft:

Web Site Update

As of 5 August 2006, the hit counter stood at **109232**, for a hit rate of about 22 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

Aug 19: Gathering of Cubs, Flabob International Airport. (951) 683-2309 ext 104

Aug 22: EAA Chapter 1000 Monthly Meeting, 7:00 p.m., Clear Channel Stadium, Lancaster CA. (661) 609-0942

Sep 5: EAA Chapter 49 Monthly Meeting, 7:30 p.m., General William J. Fox Field, Lancaster, CA. (661) 948-0646

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

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

Oct 3: EAA Chapter 49 Monthly Meeting, 7:30 p.m., General William J. Fox Field, Lancaster, CA. (661) 948-0646

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

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

Oct 26-29: Copperstate Regional Fly-In. Casa Grande AZ (KCGZ)

Nov 7: EAA Chapter 49 Monthly Meeting, 7:30 p.m., General William J. Fox Field, Lancaster, CA. (661) 948-0646

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

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

Dec 5: EAA Chapter 49 Monthly Meeting, 7:30 p.m., General William J. Fox Field, Lancaster, CA. (661) 948-0646

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

Dec 19: EAA Chapter 1000 Annual Festivus Celebration, 6:00 p.m., Kommandant's Kwarters. Quartz Hill CA. (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.

Contact our officers by e-mail:
President/Flight Advisor Gary Aldrich: gary.aldrich@pobox.com
Vice President George Gennuso: pulsar1@sbcglobal.net
Secretary Kent Troxel: kenttroxel@sbcglobal.net
Treasurer Doug Dodson: dodsond@qnet.com
Technical Counselors: Gary Sobek GASobek@Comcast.net
Ron Wilcox avi.ator@verizon.net Bill Irvine wgirvine@yahoo.com

EAA Chapter 1000 Technical Assistants

Composite Construction		
Doug Dodson	dodsond@qnet.com	661-256-7276
George Gennuso	pulsar1@sbcglobal.net	661-265-0333
Brian Martinez	brianmmartinez@cs.com	661-943-5379
Bob Waldmiller	waldmilr@qnet.com	661-256-0932
Wood Construction		
Bob Waldmiller	waldmilr@qnet.com	661-256-0932
Aluminum Sheet Metal Construction		
Bill Irvine	wgirvine@yahoo.com	661-948-9310
Miles Bowen	cessna170bdriver@yahoo.com	661-822-0806
Russ Erb	erbman@pobox.com	661-256-3806
Welding/Welded Steel Tube Construction		
Russ Erb	erbman@pobox.com	661-256-3806
Engine Installation		
Bob Waldmiller	waldmilr@qnet.com	661-256-0932
Doug Dodson	dodsond@qnet.com	661-256-7276
Electrical Systems		
Miles Bowen	cessna170bdriver@yahoo.com	661-822-0806
Instrumentation and avionics requirements for VFR/IFR		
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 CORRECTION REQUESTED

THIS MONTH'S HIGHLIGHTS:
MEETING AT JETHAWKS ONE WEEK LATER
LSA/VLJ? ARE THESE THE ANSWER?
ANTENNA DRAG ANALYSIS
WHY DO YOU SIT ON THE LEFT?

EAA™
The Leader In Recreational Aviation