

THE LEADING EDGE

NEWSLETTER OF MUROC EAA CHAPTER 1000

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

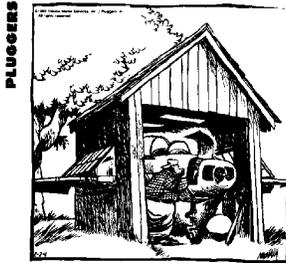
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<http://www.eaa1000.av.org>

April 1999

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

This Month's Meeting:



You're a plugger if you've built an airplane from the runway up



Project Police Project Progress Review
Tuesday, 20 April 1999
1700 hrs (5:00 PM Civilian Time)
USAF Test Pilot School Auditorium
Edwards AFB, CA

This month has caught **Herr Vice Kommandant** flat footed....But, as all good leaders and superior **Project Police Picture Pointers** (check last month's newsletter to figure that one out) I will make an amazing and resounding recovery. Ahhhh, lets see...yes, just as I had planned it all along, the group project review will take place at our next meeting. And once that is over we'll do the individual review as well, leaving no stone unturned, or is that no tune unsung? That means that all of you will be subject to the scrutiny of your elected officials as to the amount of progress you are making on your projects, no matter what projects they are, even if you're wall papering the kitchen we're going to check the seams.

So, consider this fair warning, and get busy out in the garage/hangar/what have you, and *make some progress!* Think of the fun, sawing, cutting, drilling, bucking rivets, doing all those manly things.

In addition, we have the **Project Police's** best planning a raid on **Sun'N'Fun**. Yes, Zoom Campbell has been banned this year so we are sending in our forces to prod, poke, look around and generally convey some buffoonery where it's needed. Just remember, as it says in our bylaws, they'll be there to help. The task force will consist of **Kommandant Gary**, **Webmeister Russ**, past **Kommandant Doug (Opie)** and **Gail Nusz**. They should be back by meeting time so we may get them to give us a verbal report of Sun'N'Fun before they are debriefed (won't that be fun to see) for the newsletter. So come on

out and enjoy some chips, dips and chocolate chip cookies at the next meeting

- **George Gennuso**
Vice Kommandant and Schmoozemeister



Eighth Annual Scotty Horowitz Going-Away Fly-In--15 May 1999, Rosamond Skypark

I trust you've already made room on your calendar for the fly-in event of the season! Rosamond Skypark will be abuzz with way cool EAAers like yourself, and you'll want to be there. The Bar-B-Q will be fired up and operating from 10:00 am to 1:00 pm.

A One-Shot Spot Landing Contest is planned for arriving aircraft. Sure would be nice if you'd volunteer to help run it. A People's Choice award for the best static display is also planned. Again, you could volunteer to run this (it's easy!)

Flyers are going out to surrounding chapters inviting them to join us. You'll want to be there to enjoy the fun! Numerous members of Chapter 1 have confirmed that they will be coming to check on that rumored **Project Police Hospitality**. **Don't disappoint them!**

Scotty Horowitz has indicated that he will be requesting for the almighty NASA schedulers to let him out. You know how busy NASA keeps its astronauts...

HEY DVES 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 page 10.

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

We'll publish the 1999 Chapter Roster in the May newsletter.

Last Month's Meeting

EAA Chapter 1000

Scobee Auditorium, Test Pilot School, Edwards AFB
1700, March 16, 1999

George Gennuso, Presiding

Schmoozin'

We came, we ate, we schmoozed. Eventually all of the Chewy Chips Ahoy were consumed. It was somewhere around 1740 when we finally ~~drag~~ dragged ourselves out of the lounge and down toward the auditorium. Luckily it's downhill.

Rocket Lab Ops Tempo Report

Apparently the ops tempo at the Rocket Lab is too high again. This is the only ~~possible~~ acceptable explanation (of any likelihood) of why **Secretary Miles Bowen** was not present to record the facts as we made them up.

Announcements

Test Pilot School believes in the concept of continuous improvement. The result of this is that while I knew how to successfully play a video tape in the auditorium last January (two months ago), now the system had changed and I was lost again, and nobody was around who knew how to do it. Therefore, I spent the next twenty minutes running around madly trying to find out how to make it work. In spite of trying, I finally got the sucker to work.

In the meantime, **Vice Kommandant George** announced the upcoming **Eighth Annual Scotty Horowitz Going Away Fly-In**, which has already been plugged elsewhere in this newsletter.

Minutes

Skipped. By Bob's Rules of Order, since nobody contested them, they were accepted by default.

Visitors

August Asay was present from the great state of Alaska. He works for the FAA, but is a friend of the **Project Police** none the less. He was accompanied by his father and **Wen Painter**.

Also present was **Chuck Killberg**, who reminded us that he was present at the original organizational meetings of the Muroc EAA Chapter (later to be granted the number of 1000) way back in 1991. He's missed a few meetings between then and now, but we welcomed him back anyway and hope he'll come more frequently.

New/Old Business

We don't do that. **Bob Mackey** keeps telling us that this is the job of the board.

Unscheduled Program

Roy Bailets had so much fun doing show and tell last month that he brought some more toys to show us. He started out by building on his newsletter article in last month's edition by showing us samples of bandsaw blades he had welded together. The samples were passed around

and held up to all of the abuse the gathered **PPOs** could muster.

Roy also showed two Lancair 320 cowl, one original and one extended for using the extended motor mounts to move the cg forward. He talked about techniques he uses for trimming fiberglass, and introduced us to his philosophy on tools, "Too many tools is not enough."

Roy did an excellent job of filling time while we got all of the technical stuff working for the scheduled speaker. However, he didn't stop speaking soon enough. Before he was done, he had agreed to write another article for our fine news-rag on kit completion times. We've got it on tape! Now he has to do it...

Scheduled Program

George introduced our guest speaker **August Asay**, who was visiting from Alaska and came to talk to us about the Capstone Project.

For various reasons (bad weather, mountains, less than clear approaches to small clearings laughingly called "runways"), Alaska has a much higher aviation accident rate than the other 49 states. Even so, Alaska is extremely dependent on aviation for transportation. They do have roads there, just not many of them. Try to imagine if the only roads in the Antelope Valley were CA 138, CA 14, and Rosamond Blvd. Phelan would be Juneau, Palmdale would be Anchorage, and Edwards would be Fairbanks. Imagine trying to get anywhere else in the valley. Oh, and we'd need to grow a bunch of mountains. You get the idea.

Flying IFR in Alaska isn't easy, and is mostly impossible, since most of the state has no radar coverage. As for VFR, the weather is frequently marginal at best. The FAA folks may have considered developing a radar that could see through mountains, but weren't successful at getting funding. So the local FAA folks decided that if they could find another way to improve the pilot's situation awareness at an affordable cost, maybe they could make a dent in the accident statistics instead of airplanes making dents in mountains. You know how some people get about dents in mountains.

By some miracle, the local FAA was able to get actual funding for a project that made sense. Of course, money attracts bureaucrats like scatological remains attract flies. National FAA found out about it and tried to convince them that the national folks could find much better ways to spend that money, probably involving new furniture for executive offices. Fortunately, the Alaska folks held to their guns and managed to keep the money but with an agreement to collect data on the "Free Flight" concept.

The concept was to install an IFR approved GPS, terrain database, multi-function display (MFD), and some other cool software and hardware in the aircraft of 200 commercial operators. This is typically aircraft like a Cessna 207 or smaller. These 200 test aircraft are all located in southwest Alaska in an area that is effectively isolated from the rest of the state by oceans and mountains. All of the equipment is commercially available, and pilots other than the 200 test cases are welcome to buy the equipment on their own nickel.

After describing the program, August showed us a really cool videotape of some flight tests. The camera

showed to view out the windshield, and an inset picture showed the MFD. As the aircraft flew an approach, the MFD showed a graphical representation of the terrain and the runway. It closely resembled the picture you would see if you were flying the approach on Microsoft Flight Simulator. As a bonus, the MFD showed a series of rectangles as the "highway in the sky." No staring at CDI and glideslope needles—just fly through the boxes to the runway. Curved approaches were no problem. Several approaches were shown in VMC, with one last approach in heavy rain where the runway was almost invisible. Everything on the MFD correlated to the outside world. Very impressive.

It's a good thing that **Kommandant Aldrich** was busy at Tehachapi with official TPS Glider Guider duties. If he had seen the demonstration, he would have immediately started lobbying to have a system installed in the VC-180.

Someone suggested that Alaskan pilots should take a teenager with them in the cockpit for additional safety. In the case of IMC, the controls would be turned over to the teenager who would just fly the "computer game" to a safe landing.

Thanx, August, for letting those of us down here in the desert in on the cool new test projects up north.

Adjournment

The meeting was adjourned when we were good and ready to. Numerous **PPOs** did their duty and proceeded to the **PPHFFRC (Project Police High Fat Food Replenishment Complex)**. Discussions were held on subjects of mutual interest. If you really want to know what happens at the BK, you'll just have to join us.

- **Erbman, Pseudo-Secretary**

The Prez Sez...

...and so I said, "Don't worry, Russ, I'll get my column to you before I leave for Eureka on Friday." That got him off my back for the moment. Now it's Saturday afternoon and I am 467nm NNW of Edwards wishing I'd kept that promise! As I write this in foreign surroundings I am reminded that one of the longest range **Project Police** assaults is set to commence in less than a week. In case you hadn't heard, the Fighting Skywagon will be leading a two-ship of troopers to the "other Oshkosh"-- the one in Lakeland, Florida by the time you read these words. She'll be crewed by myself and your NLE, who will regale you of our adventure in a future edition of the Leading Edge. Our "wingie" is former Det 4 commander **Doug Dodson**, accompanied by his fiancée **Gail Nusz** in their recently acquired M20C "Strike Mooney". Doug's been lavishing upgrades on the little speedster and promises a full report of their pros and cons after he wins the "Sun 60" air race event at Sun & Fun. Look for all the details next month.

Speaking of next month...Be sure and secure your kitchen/hangar passes for our annual descent on target L00. The venue remains the same as previous years, though we now owe AV Aviation, Rosamond's new FBO, a debt of gratitude for sharing their hangar for the festivities. See the flyers posted almost everywhere, or the chapter web site for details. Rumors abound of this year's

excitement...from a promised retaliatory raid by the dreaded Flabobians, to a possible cameo appearance by the namesake space cowboy. No matter what, a good time is guaranteed to all...especially those who pitch in with the setup, teardown, or myriad of other small tasks that always accompany such an event. See y'all there!

Fly Safe & Check 6!

- **Gary Aldrich**, Commanding



Young Eagles Update

Next Rally: April 10th, 8am, Rosamond Skypark

PPO Jim Payne reminds us that a Young Eagles rally will be held on April 10th at Rosamond Skypark. **Project Police Spouse (PPS) Jackie Payne**, a teacher at Desert High School at Edwards, says to expect a big gaggle of kids from the base. Initial polls indicate at least 30 interested and willing subjects. The Rosamond Rotary will be serving breakfast from 8:30 am. Young Eagle pilots and volunteers will get free food! Do you need any better reason to show up? Even if you don't have an airplane to fly, **Paul and Victoria Rosales** will be happy to put you to work doing important stuff.

Young Eagle Operations:

Dave Webber

Dave.Webber@dfrc.nasa.gov

dawebs@ptw.com

948-9589

David McAllister

David.McAllister@dfrc.nasa.gov

256-4829

New Members

Last month in this section we welcomed **Vance Cochrane** to Chapter 1000. Well, Vance was so excited about joining that before that issue of the newsletter was mailed he had convinced his buddy **Mike McKinley** to join up as well!

Mike McKinley is a Fire Department Captain who lives up in San Francisco in the Det 11 area. He owns an Aviat A1A Husky, and is interested in aerobatics. We're guessing he hangs out with **Norm Dewitt** while getting proficient in a Pitts Special. If you remember the Copperstate Dash from 1997, then you would remember him as the 3rd place finisher. He also is working with the Naval Aviation Museum on the USS Oriskany CVA34 project. Hmm...sounds like an interesting meeting topic....

We received this update from **Shawn Keller**: "Hi, just saw my "induction" into Chapter 1000 in the new member section of the newsletter. I hate to admit it, but in the short time since I submitted my application, I already have an update to my project!"

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It is in fact a TEAM Z-max, model 1300. I have both a closed canopy and open canopy which are easily interchangeable. It got nicknamed "Eindecker 2000" by one of my hangarmates in Mojave because of the slow nature of the beast and my color scheme, which will be red with white bands on the wing, complete with black iron crosses. The major update, in an effort to get airborne with a minimum of elapsed time, is an engine change from the Subaru to a Zenoah G50D. The engine the aircraft was originally designed around! I do believe it will be a superb Low-Speed Aerial Assault Vehicle, particularly once the TP-82 toilet paper dispenser is installed, in conjunction with the TLAR weapons guidance computer!

As a result I have a Subaru direct drive system, with most engine instruments, available to anyone who may be interested. I'll figure out a price if anyone is interested, but it'll probably be around \$1000 for everything, including the prop that would have been used with it on my Max."

More on Work Tables

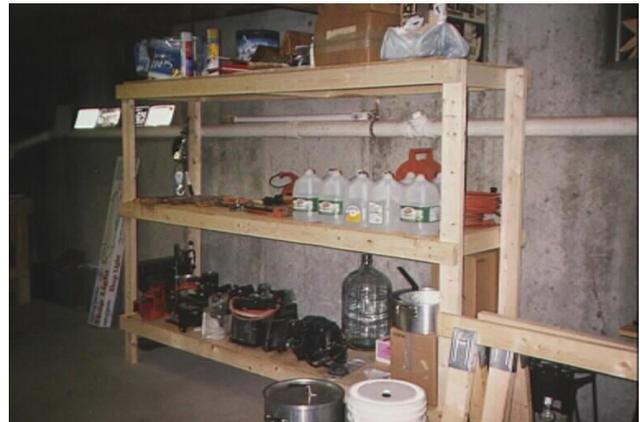
(Note: Before you read this, pull out your copy of the Chapter 1000 newsletter dated June 1992. You do still have it don't you? Whadya mean, you didn't join until 1997? Well, then, go to <http://www.eaa1000.av.org/technicl/worktabl/worktabl.htm> and review. If you can't do that, well, you're on your own to try to figure out what Chuck is talking about. Whadya mean, you can't ever figure out what he's talking about?)

The design you see is simple but very versatile. One mark of a good design is its ability to be transformed to alternate uses without sacrificing the underlying utility of the original. Usually, this applies to things a little more sophisticated than 2"x 4" studs and plywood, but hey, we get lucky sometimes. The designers, all of whom are test pilots or engineers at or around Edwards AFB in California, would certainly appreciate that where you have model 1A, if left for a time in front of an engineer will necessarily result in model 1B, 1C, and so on. (It's their nature. It's why Dilbert is a kindred soul!) (*not only that, designs left in front of engineers tend to gain weight*) And since EAA Chapter 1000 has been rightly accused of over-engineering plywood to the extreme, I'm sure they'll appreciate the variations I've built. Mine are a more traditional work bench and shop shelves.



For a traditional work bench, simply substitute five (5) 2"x 6" premium studs for the plywood table top after building the work table design. This eliminates the need for the 3/4" plywood, 3d finishing nails, and screen molding. Layout each stud spaced approximately 1/8". If you want a clamping edge, you can overlap the front by about an 1 1/2", but remember to insert an additional stud cut to size in the center to compensate for the added span. This leaves room on at the rear of the table surface for a 2"x 4" back tipped on end. You can cut the studs flush with the table length or allow for approximately 1 1/2" overhang on each end as a clamping edge. I used #10 2-1/2" wood screws to attach the table surface studs and #10 3" wood screws to attach the back.

To finish the bench I added two 3" deep wire baskets under the table top. The baskets are the kind you use in closet remodeling and are relatively inexpensive. They're hung between three 2"x 4" studs cut to the bench width, one in the center and the others on to the outside of each shelf, with a 1/2" groove cut to receive the shelf runner. If you plan to use the work bench to complement a standardized work table, you'll also need to adjust the leg length since the use of the 2"x 6" stud for the table surface raises the overall height by approximately 3/4". One final consideration is the gluing. I chose not to glue the attach points for the legs on the table top and shelf. This will allow me to breakdown the tables and transport them a little easier than if fully glued as described in the standardized work table instructions.



The storage shelves are just an extension of the lower shelf design to a longer length for the front and rear frame studs. I used an 8' stud for each shelf front and rear frame member, and added a couple cross braces spaced evenly along the length. I chose to build three shelves. For each leg, I used a single 68" stud, attached to the inside shelf frame outside the end brace, and spaced each shelf 24" apart. I left out the doublers since I didn't need the load bearing capability, but you can use them for heavier carriage. As in the work instructions for the standardized work table, the last thing to do is to attach the 1/2" plywood shelving cut to length. The shelves are attached with #8 1-1/2" construction screws. I find these are excellent light to medium duty shop shelves and very sturdy due to the inherent stability of the original design. And like the work bench, I chose not to glue the leg attach points so I could break them down for transport if needed.

Since I'm not one to leave a good design alone, I've got two more variations in mind. One is a rolling work surface on which I'll mount a standard bench vise. (You could also attach a wood vise and drill holes in the upper surface to accept inserts for clamping brace points.) I intend to make it the same length and height as the standard work table, but lower the shelf to almost floor level. In between the table top and lower shelf, I plan to put to an angled middle shelf (inverted V shape at about 20 degrees incline) with front catch edges on about 2". This would be for easy access to hand and power tools I wanted for my project but didn't want on the table top. The lower shelf is for saws, bar clamps, or anything else that is too long for the middle shelf. The entire table would be mounted on two sets of castoring wheels, one set at each end placed inside the legs, with a bar mechanism to raise and lower them. The wheels when lowered would let the table rest on the legs at the appropriate height.

My second variation is for a two surface shop shelf, with the upper and lower surfaces attached at the extremes of the legs. I'll expand the shelf to an inside span of at least 4', use beams of 2"x 6", and do some additional framing in the interior to create cradles for holding such things as spars, longerons, or even finished control surfaces in cradles. Standard plywood lengths of 4'x8' could be accommodated laid flat on the upper shelf or standing on end in cradle. This will give me someplace to put raw materials or longer finished pieces that could easily be damaged if not protected.

If you need to see the basic designs again or would like to make a copy for yourself, fire up the PC and go to <http://www.eaa1000.av.org>. The plans are listed under Cool Projects from Chapter 1000. It's quite an Internet site, and you'll enjoy the content and links to other places on the net. (Yes, this is a shameless plug for the site, but I had to do something to compensate for "liberating" the original design.)

OK. So now you have an excuse to go to Home Depot and spend many hours getting materials and browsing the shelves for other stuff you need. (Your wife calls this shopping and you didn't understand what she was really doing until they built these big man toy emporiums, did you?) One final thought: for those of us working in garages that must also house cars, the tables, benches, and shelves fit rather nicely against the wall and still allow you to park. All right, one more final thought: the tables are pretty good for picnics since you can put salads and chips on them in multiples suitable to entertaining properly in your back yard. And since they're sub-gorilla size, they're easily moved. Just remember to cover them before serving. The tables that is.

(Reprinted from the original with the author's permission. Initial publication in EAA Chapter 336 newsletter.)

- Chuck Firth
EAA Chap 1000 Det 9, Auburn NH

Self-locking Nuts -- Use and Limitations

The use and limitations below are from Reference 1.

"Self-locking nuts shall be subject to the following limitations:

1. Self-locking nuts shall not be used as follows:

a. At joints in control systems at single attachments, or where loss of bolt would affect Safety of Flight unless the threaded parts are held by a positive locking device that requires shearing or rupture of material before torsional loads would relieve the initial stresses of the assembly.

b. On any externally threaded part that serves as an axis of rotation for another part unless there are no possible torsional loads which can be applied to either external or internally threaded part in such a manner as to relieve the initial stresses of the assembly, or unless the threaded parts are held by a positive locking device that requires shearing or rupture of material before torsional loads would relieve the initial stresses of the assembly. Example; pulleys, cranks, levers, linkages, hinge pins and cam followers.

c. With bolts or screws on jet engine aircraft in locations where the a loss of a nut, bolt or screw could fall or be drawn into the engine air intake duct.

d. With bolts, screws or studs to attach access panels, doors or to assemble any parts that are routinely disassembled prior to or after each flight for access or servicing.

2. Bolts, screws or studs must extend thru the self-locking nut for a minimum length equivalent to two threaded pitches. This length includes the chamfer. (*author's note: This does not necessarily apply to "self-retaining" bolts and nuts. "Self-retaining is not the same as "Self-locking."*)

3. Self-locking plate nuts shall be attached to structure in a positive manner to eliminate the possibility of their rotating or misaligning during installation or removal of the bolts or screws. The manner of attachment shall permit removal without damage to the structure and permit replacement of the nuts. When projection spot-welding is used for attaching the plate nuts, control shall be maintained in order that removal, by drilling out the welds, permits replacement with drilled plate nuts.

4. Self-locking nuts that are recessed into a hole in a structural piece shall embody the following:

a. The nuts shall accomplish torsional rigidity (anti-rotation) by engagement in the hole by lobes or flat surfaces of the nut. The lobes or flat surfaces shall be continuous and smooth form (with no sharp or pointed edges) and with the radius of curvatures greater than 5% of the normal thread diameter. The nut when installed in the structural material shall not rotate when subject to maximum torque-out values of MIL-N-25027. Anchorage rigidity along the threads longitudinal axis shall be by a flared sleeve formed perpendicular to the threads longitudinal axis or by forming the structural material into a continuous and smooth curved groove on the nut with radii of curvatures greater than 5% of the nominal thread diameter. There shall be no cracks in the nut in the structural material after installation.

5. Self-locking nuts that have been reworked or reprocessed shall not be used.

6. The following nut types, as described below, are not acceptable for use in aircraft structural applications:

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a. Nut types that depend on friction for anchorage and torsional rigidity such as single rivet plate nuts.

b. Nut types that require embedding the non-approved sharp shapes (such as polygons, teeth, knurls, etc.) for their anchorage and torsional rigidity." (*common split lock washers found in hardware stores*)

Comments

There are nuts that do not fall into the classification of "Structural" that do have sharp edges such as the lock washers for electrical equipment and some nuts. Remember: Sharp edges and sharp corners cause stress risers and therefore start cracks. We were taught to be careful how we carried a screw driver when on a metal wing. If it fell or scratched the wing surface, we could expect a crack to develop, even on a DC-3.

Partial Summary (Do remember this:)

1. Always have two safety devices in control systems. A cotter pin is only one safety. USAF lost its top helicopter test pilot because a cotter pin was missing.

2. Self-locking nuts that use friction as a lock should not be removed and re-installed more than 5 times. That's the number I use. Other people use fewer or more. Experience mechanics can usually tell by feel.

3. Watch out for sharp edges and gouges.

Reference

1. "Nuts, Self-locking, Aircraft, Reliability and Maintainability usage requirements for," MS33588 (Supersedes AND10068), 28 Dec 1984.

- Lee H. Erb

EAA Chap 1000 Det 5, Arlington, TX Chap 34
LeeErb@Compuserve.com or (817) 275-8768

EAA HQ Seeks Out The E-Mail Equipped

If you have an e-mail address, **PPO** and Vice Grand Poobah for Chapter Stuff **Bob Mackey** wants to know about it.

Quoting from the postcard received here at **PPHQ**:

"In an effort to increase the level of communication between the EAA Chapter Office and the Chapters and Squadrons, we are asking you and any member of your Chapter to send in your e-mail address to:

chapters@eaa.org

Chapter Gram will become an electronic newsletter called "*Chapter E-Gram*." In addition, the Chapter Office will be able to more efficiently send out notices and reminders."

New Project Police Aviator

Project Police Intelligence Operatives have uncovered evidence of a recent issuance by the FAA of 1 ea. "Private Pilot Certificate" to one **Laura Meyer**. The **Project Police Officers** gathered at the **PPHFFRC** after the last meeting

(oops) gathering (sorry, **Bob Mackey**) got so excited, they started chasing her around the **BK**, shouting something about cutting off her shirttail. This came to an abrupt halt when they realized 1) she wasn't wearing the shirt she wore for the flight practical test, 2) "shirttailing" is for soloing, not passing the practical test, and 3) nobody had any scissors. Good thing, too, since the **Project Police Bylaws** strictly prohibit **PPOs** from running with scissors.

Now that she has completed her training, she'll have more time to harass husband and **PPO Mike Meyer** about getting around to ordering those Cozy Mk IV plans and ordering up a truckload of foam, glass, and resin. She probably won't be too successful, though, since Mike was recently notified that he was selected to attend **TPS** (~~Typing Proficiency School~~ Test Pilot School) in Class 00A.

Congratulations to both of you!

Chris Reeder Reports In From Pilot Training

And sends in his Dues Check...

Greetings from the Wichita Falls-Burkburnett Metroplex! I just received Ch 1000's most recent newsletter and was not surprised to find my name on page 6. By the way, thank you for your continued efforts putting the newsletter together every month—seeing it come in the mail gives me a boost, even though I'm so far away from home.

I'm sorry I am one of the Dues Infidels. No Excuse, Sir! The T-38 program has kept my mind so intensely occupied that the past 2 newsletters, I've just stashed them in my file in hopes to read them later. But, again, there's really no excuse.

I guess with only 3 months left in ENJJPT, I should give you an update on how things are going. *<This sentence left out by Chris' superstitious request>* T-38s is going very well and I really love it! Despite all the horror stories about the White Rocket, I think it flies like a Piper Cub, just goes a little faster and rolls a bit quicker (How's that for a Flying Qualities report?).

Take Care & Blue Skies!

Regards,
Reefer



Chris and his dogs



"My Baby after the restoration. Photo taken at Wichita Valley Airfield, TX."

Family Picnic

Just can't wait for the 8th Annual Scotty Horowitz Going Away Fly-In to get together with all of your aviation buddies? Have we got a deal for you! One week prior, a Family Picnic will be sponsored by EAA Chapter 49 in conjunction with Antelope Valley 99's and WJF Airport Association. Come on out and watch the ducks and all of your other favorite aviators.

Where: Apollo Park (Adjacent to WJF)

When: Saturday May 8, 1999. Approximately 1300 to 1700

Food: BYO Main Dish, Drinks furnished by 49'ers.

Last Name A-K bring salad, Last Name M-Z bring dessert

Family Fun for Everyone. Model Glider Contest for the Kids and Grandkids (Gliderns Furnished)

Scooter Plane and Pedal Planes

Buck Rivetz' Web Page Review

Project Police Det <DATAMASKED>



"We're here to help!"

Target for the Month:

Homebuilt Kit Manufacturers

Date of Review: March 1999

After a long winter of toiling in my hanger, I'm back at the computer, ready to do battle with the web gods.

In this installment, I'm going to take a look at a couple of web sites. I thought I'd wander around the manufactured kitplane sites and let you all know what's really out there. For this demonstration, we'll take a look at some of the popular kit sites: Lancair, maker of go-fast composites, Van's Aircraft, the kitplane metalmaster, and SkyStar, maker of the Kitfox line of aircraft. Sit back and enjoy the review. And remember kids; don't try this at home!



Found at <http://www.lancair.com>. Pretty easy to find. Lancair presents you with a splash screen on the right and some navigation buttons on the typical left side. For some reason, webmasters have pretty much decided that the left border is where the navigation buttons ought to be. We find the usual contact information here with some pretty dull graphics (Gray background and one small picture of the Lancair 4P.

Starting my investigation into this website I'm presented with COMPANY, AIRCRAFT, AIRPOWER, UPDATE, LINKS, MAIN (hey, I'm there already as indicated by the color coding), MULTIMEDIA, and E-MAIL buttons. I also have button to ordering info and a link to the Columbia 300.

The Columbia 300 Link takes us to the Columbia page with all its propaganda on Lancair's first production machine. Maybe I'll leave that one for a later date. Back to the good stuff.

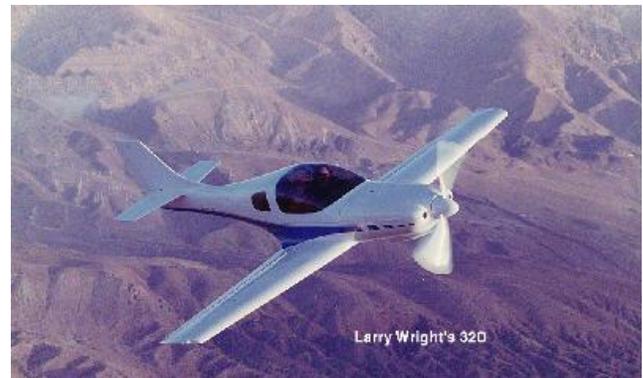
The Company link gives us an overview of the company and a cheesy picture of Lance himself. Pretty basic web stuff but the info is there. Not enough detail to put you to sleep but enough to be interesting.

The real info is under the AIRCRAFT button. Hey, it's what most of us want to see anyway. The three product lines, IV/IV-P, ES/Super ES, and 320/360 are here to take a gander. Under each model there's a breakdown of the important info, Airplane Specs, Kit Pricing (I said it had the important stuff), Tools Needed, Kit Contents, and Kitplane Options.

Most of these pages are in tabular form and lacking graphics. If you need the info, you're going to find it. The only good illustration appears to be the breakdown graphic under kit pricing.

In addition, found under the IV-P page are several shots of the manufacturing facility.

The AIRPOWER link takes the visitor to a variety of customer completed aircraft where we find a nice air-to-air shot of Chapter 1000's Larry Wright's Lancair 360. Click on each picture and you get some background info on the individual aircraft.



Larry Wright's 320

UPDATES list some of the most recent news releases involving Lancairs as well as short notices on the Sun 'n Fun Fly-In and others.

Of course, there's also the obligatory LINKS page that contains a handful or so of Lancair related links to other sites.

MULTIMEDIA gets you to the more interesting info on the site. You'll find Construction Techniques/ Lancair 360, ES/Super ES, and IV/IV-P RealPlayer downloads. The Construction Techniques download was only about 800K so it was pretty quick. The only drawback is that you need to download the *RealPlayer* plugin found at <http://www.real.com>.

To round the site out, you can find an on-line form to request additional ordering info.



Next, we're off to Van's aircraft at <http://www.vansaircraft.com>. This is going to take a while just from the initial impressions. The site is night and day from the last site as the white background makes all the text and graphics much easier to read. Even the gray navigation bar (on the left!) has blue buttons. The cool thing about the buttons is that they're a little more descriptive. As soon as you click on one button, the navigation bar expands to include all the sub-links to that page.

With the home page to Van's, there's a counter, like most sites. The BIG difference is that Van doesn't measure hits to the web site, he's measuring the number of RVs that have been completed and flown!

The GENERAL INFORMATION area is pretty general and gives the usual stuff on the company and some high level info on the kits; history of the aircraft, "Total Performance," Quickbuild Options, engines, etc...

Although I don't particularly care for the gray block header that is in use on most pages, the graphics are well done, descriptive but not intrusive. Judicious use of the thumbnail pictures really helps in download speeds.

AIRCRAFT MODELS breaks down into the usual Van's product lines, RV-3, -4, -6, -6A, -8, and -8A. By clicking on the photo or the Model Name there's a link to that model's page which includes the model specs, performance (both solo and dual), and a 3-view drawing.

KIT OPTIONS are divided between the Standard kits and the "Quickbuild" kits, each with it's own page describing the kit and shipping crate size and weights.

GETTING STARTED will bring the wayward visitor to all the good beginners' info on the RV series. Info Packs & Videos, *RVator Newsletter*, Fly-In Schedule, Factory Tours and Demo Flights, Pricing, Kit Lead Times, Ordering, Tech Support & Builders Groups, and Construction & Flight Training. LOTS of information here!

Van even gives the builder the capability to download the whole 1998 Accessories Catalog at 1.81 MB size or just download the parts you need. If you just need an update to existing pages, you can get that too. Pretty nifty!

The SPECIAL SECTION (ooooohhhh), has latest press releases, the RV of the week, a short article on Jon Johanson (around the world in an RV-4), a short on the Nigerian Air Force, and a couple of pics on an RV on floats.

To round out the site, there are bios on some of the key players at Van's Aircraft. In addition, no site would be a good site without links to other webs, found under INTERNET RESOURCES.



The last of the Kit Manufacturers I wanted to touch on is the SkyStar site at <http://www.skystar.com>, builder of the Kitfox and Pulsar line of kits.

SkyStar has the same general layout as Van's, but the colors are a little more pleasing. Left side navigation bar with a white background. This tends to give a very easy-to-read format for the viewer and gives the least trouble to the webmaster when it comes to graphics.

The visitor immediately notices the aircraft models on the right side. Clicking on any of the aircraft pictured takes you to an introduction to that particular aircraft as well as some specs such as GW, top speed, rate of climb, cruise, stall, etc.

WHAT'S NEW currently has a couple of nice shots of the new Kitfox Lite, a single seat ultralight with a paint job resembling the old Kitfox V.

With any good Manufacturer web site, there ought to be that all-important pricing information. Well, we have it here too. It's pretty easy to understand and covers all the options to include engines.

SkyStar includes an on-line newsletter section as well as a downloadable options catalog, just like Van's (or is Van's just like SkyStar?).

The FAQ section will hopefully answer your basic questions on the Kitfox series, Pulsar, Outback, and Voyager aircraft, but don't expect detailed technical answers here. Seems that this section is geared to those homebuilder beginners. But hey, just order the info pack and you're on your way.

ABOUT us has some pretty cool background graphics and a map to the plant in Idaho, while the PHOTO GALLERY has a couple of photos on each model, broken down by model.

And as usual, the company announces those events pertaining to their product through the COMING EVENTS section. This one features the KITFOX ASSEMBLY WORKSHOP - FEBRUARY 26-28, in GRIFFIN, GEORGIA as well as Sun-n-Fun and "Oshkosh EAA Fly-In" (I love it! Another protest against the moniker "AirVenture").

Well, Buck is just about out of time so this review needs to close out. What we have is a small sampling of the manufactured kit sites that are available to the builder today. Quality of information varies greatly as well as the quantity of info. Without a doubt, Van's Aircraft site is one stop shop. They claim that a visit to the plant and a reservation for a ride is the \$30,000 demo flight. I contend that the visit to their web site is also a \$30,000 visit. For both Van's and SkyStar, all the info you need is present and accounted for, but with Lancair, you may want to fork over the 10 bucks for the info pack. But then again, Lancair does provide the RealPlayer videos where you're going to have to order the tapes from the other two.

It's time to get back to building airplanes so keep that mouse moving and check out the latest from Buck! Remember all these sites are here-by

APPROVED!

- Buck Rivetz

WEB ALERT!! WEB ALERT!! WEB ALERT!!

Bonus find!

<http://www.provide.net/~pratt/ambuilt/faqhmb1t.htm> is a small site by an FAA guy and provides unofficial FAA info including a checklist this inspector uses to certify homebuilts. CHECK IT OUT!!!! **Buck endorsed!**

Project Police Aircraft Spotters Obscure Airplane Identification Contest

Okay, here we go again. Can you properly identify the airplane below? If you think so, send your guess to the Newsletter Editor by e-mail, snail-mail, or other telephonic communications device. Include as much information as you know, including the aircraft designation, manufacturer, and operational mission. The first person to correctly identify this aircraft will win bragging rights and will have their name and answer printed in next month's *The Leading Edge*. Hurry, you'll want to beat **Jim Piavis** to the punch.

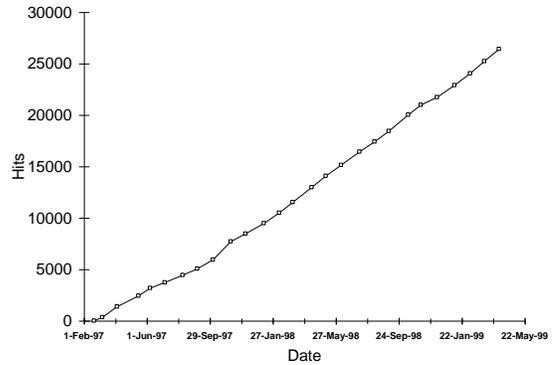


If you have any pictures of really obscure airplanes that you think would challenge the *Project Police Aircraft Spotters*, send it to the Newsletter Editor with a description. You'll get your picture back.

Web Site Update

As of 3 April 1999, the ol' hit counter stood at **26402** hits. March was another good month, with the hit rate staying at 42 hits/day. While you won't really notice anything "new" on the web site, I have done some clean up

such as splitting up some of the really old newsletters and making some corrections here and there.



Usage History on <http://www.eaa1000.av.org>

- Russ Erb, Webmeister



Just a reminder that the EAA Chapter 1000 Web Site is hosted courtesy of Quantum Networking Solutions, Inc.

You can find out more about Qnet at <http://www.qnet.com> or at 661-538-2028.

Chapter 1000 Calendar

Apr 20: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 490-1476

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

May 11: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., Edwards AFB. Test Pilot School, MOL Room (661) 490-1476

May 15: Seventh Annual Scotty Horowitz Going Away Fly-In, Rosamond Skypark (L00), Rosamond CA.

May 18: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 490-1476

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

Jun 8: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., Edwards AFB. Test Pilot School, MOL Room (661) 490-1476

Jun 15: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 490-1476

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

Jul 7-11: Northwest EAA Regional Fly-In, Arlington WA

Jul 13: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., Edwards AFB. Test Pilot School, MOL Room (661) 490-1476

Jul 20: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 490-1476

Jul 28-Aug 3: EAA AirVenture '99 Fly-In Convention, Oshkosh WI

Aug 4: No EAA Chapter 49 Monthly Meeting

Aug 10: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., Edwards AFB. Test Pilot School, MOL Room (661) 490-1476

Aug 17: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 490-1476

Sep 10-12: Golden West EAA Regional Fly-In, Castle Airport, Atwater, CA

Sep 14: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., Edwards AFB. Test Pilot School, MOL Room (805) 490-1476

Sep 21: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (805) 490-1476

Oct 9-10: Edwards AFB Open House and Airshow

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

Oct 19: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (805) 490-1476

For Sale:

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

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

Contact our officers by e-mail:

President Gary Aldrich: gary_aldrich@pobox.com

Vice President George Gennuso: pulsar1@qnet.com

Secretary Miles Bowen: miles_bowen@ple.af.mil

Technical Counselor Gary Sobek: gasobek@jps.net

Inputs for the newsletter or any comments can be sent to Russ Erb, 661-258-6335, by e-mail to erbman@compuserve.com

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

THE LEADING EDGE**MUROC EAA CHAPTER 1000 NEWSLETTER****C/O Russ Erb****6708 Doolittle Dr****Edwards CA 93523-2106****<http://www.eaa1000.av.org>****ADDRESS CORRECTION REQUESTED****THIS MONTH'S HIGHLIGHTS:****REGULAR MEETING 20 APRIL AT TPS****CHUCK FIRTH'S WORK TABLE MODS****MEYER, REEDER UPDATES****BUCK REVIEWS KIT MANUFACTURERS**