



THE LEADING EDGE

NEWSLETTER OF MUROC EAA CHAPTER 1000

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

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July 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:



Bob Stevens

CLASSIFIED PPNTK

Speaker: <DATAMASKED>

Tuesday, 20 July 1999

1700 hrs (5:00 PM Civilian Time)

USAF Test Pilot School Auditorium

Edwards AFB, CA

This month's program is CLASSIFIED PPNTK (*Project Police Need To Know*). Therefore, its contents will only be revealed to those who actually show up at the meeting. Critical information from the *VGPCS* will be disseminated. The contents are scheduled to be declassified prior to publication of the next newsletter.

By the way, your Newsletter Editor is out of the state for most of July, so this newsletter is being assembled earlier than usual. Somebody take notes for the meeting minutes!

Chapter Booth In Search of a Good Home

Wanted: Good home for the famous Chapter 1000 Booth. If you have some hangar/garage space you can spare, your chapter needs your help sheltering the "most over-engineered piece of plywood on the planet". It's friendly, obedient, doesn't eat much and is good with kids. The booth is easily transported on its custom trailer and occupies an 8'x10'x8' area. We need to preserve this engineering marvel and protect the countless hours of sweat that went into its design and construction. Call the Kommandant at 661-609-0942 if you can help!

Last Month's Meeting

EAA Chapter 1000

Scobee Auditorium, Test Pilot School, Edwards AFB

1700, June 15, 1999

Gary Aldrich, Presiding

The meeting was called to order at some time after 1730 following schmooze time, where we saw stuff we'd seen before. The **Schmoozemeister**, being ever mindful of chapter resources, was using up what was still usable from the big fly-in shin-dig. None of the **Raven's Nest C³**'s made it, as none survived the week after the fly-in.

Guests

Andy Gerner was present, currently TDY to TPS from the USAF Academy Department of Aeronautics, working on re-writing the Introduction to Aeronautics class. He has some glorious plans of building half a dozen Thunder Mustangs, then selling off five to cover his investment. That is, if he can find a way around the FARs (technically 14 CFR) that specifically disallow doing that sort of thing in the Experimental-Amateur Built category.

Janet Fischer was visiting with her member husband **George**.

Rich Turner was technically not a guest but a member. Rich is a charter member of our fine chapter, and has been living in Panama City FL for many years now. No, his Glasair II isn't finished yet. Rich was at Edwards at the request of his employer, and thus did what all good **PPOs** do on the third Tuesday of the month.

Announcements

The annual Arlington fly-in is coming up 7-11 July 1999. Of course, if you were planning to go, you probably knew that.

If you're interested in a Y2K-compliant EAA Calendar, let the Kommandant know. The chapter can order them in bulk cheaper than you can individually. That is, unless you wanted a few hundred...

Dave Fedors donated a King Schools promotional videotape to the chapter. This tape claims that after watching it, you will be able to make flawless crosswind landings. Your test will be at Rosamond Skypark the next time a south wind blows up. The tape also will tell you

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how you can win a free airplane. (*Hint: Buy a video course from King Schools. Then take your chances with every one else who did.*) No word on how you'll pay the income taxes on the "free" airplane. The videotape will be in the Chapter library at TPS.

The next big chapter event will be the Edwards Open House. The level of participation of the chapter is not yet defined. More to follow. The big news this year is that Sean D. Tucker is scheduled to perform. Highly recommended by the Kommandant. Maybe we'll be able to get him to hang out with the chapter.

Per **George Fischer**, Rosamond Skypark (L00) will be closed 19-20 July 1999 for applying a slurry seal to the runway.

Minutes

Accepted by default.

Program

Our program was presented by Dana Kilanowski on the aircrew deceleration experiments conducted at Edwards (1947-1951) by Dr. Col. John P. Stapp.

Ever wonder how the specifications for seat belts and shoulder harnesses were determined? A lot of it came from the experiments done by Dr. Stapp. A sled track had been built at North Base (none of which remains today) by Northrop (as **George Gennuso** likes to point out) to test the U.S. version of the German V-1 "Buzz Bomb" cruise missile. The cruise missile testing was complete and the 2000 foot track was unused, so Dr. Stapp saw it as being useful for human deceleration experiments.

The idea was to determine what sort of forces a human could withstand in an airplane crash or ejection. To do this, "volunteers" were strapped to a rocket sled, instrumented, and given cool "tatoos" of that ever-popular photo target (square divided into four squares with black squares on one diagonal and white squares on the other diagonal). No mention was made of the depilatory effects of removal of said stickers. Frequently the "volunteer" was Dr. Stapp himself. Tests were made both facing forward and backward. The subject was then accelerated by firing rockets, coasting briefly, then decelerated by mechanical brakes from over 100 mph to about 35 mph in front of the data cameras. Data were collected on the acceleration and also the time rate of change of acceleration (referred to as "jolt" or "jerk").

After describing the tests, Dana showed us a video of an ancient Air Force training film recently sent to her by Dr. Stapp. It was everything you would expect of an early '50s Air Force training film. Besides describing the experiments, it also led to a Mystery Science 3000 (MST3K) type session, as the modern day engineers in the crowd heckled the film. Of particular note was that the "volunteers" looked very stylish in their shorts, no shirts, and Air Force uniform shoes while riding the sled. When administering the experiments or watching films in the office, they, of course, wore service dress. This is the Mojave desert. Right. Sometimes looking good for the cameras overpowers common sense or reality.

After completion of these experiments, Dr. Stapp would move to Holloman AFB to get the use of the new longer sled track and to escape personal differences with

the Edwards command section. At Holloman was where he made his more famous sled rides to supersonic speeds and with the more powerful water brakes.

If you missed this outstanding historical presentation, be sure to borrow the meeting video from the chapter library and see it for yourself.

Adjournment

The meeting was adjourned around 1830, at which time many attendees decided to gather at the Burger King, a.k.a. **PPHFFRC (Project Police High Fat Food Replenishment Complex)**, with our esteemed speaker, where good times were had by all.

- **Erbman**, Psuedo-Secretary

The Prez Sez...

Whew! Looks like the Antelope Valley Summer is in full swing. The mighty Skywagon seems to have "misplaced" a chunk of horsepower and the lifties are just too darned hot to boost us skyward...unless you count the booming, passenger-pleasing thermals that dot the desert every afternoon. At least it's flyable—and the evenings have been perfect for relaxing in the open hangar door and watching the fire bombers launch and recover. Our poor brethren to the south have been buried under the standard "June Gloom".

Well, that's enough for the weather report. It's not too early to start thinking about the Chapter's next big adventure...Edwards Open House 99. This year's two-day show will put extra demands on your cache of volunteer time. Why not plan now to support one or both days? Many hands make light work...yada, yada...

That event will also be an ideal time for those of you contemplating a run for Chapter Officer to campaign among the membership. Most of the senior leadership positions are up for grabs this year. We will soon be forming a nominating committee. (Psst, one way to ensure that you are not nominated is to be on that committee...call me)

Oh yeah! I am delinquent in my task of thanking those of you that made May's Scotty Horowitz, etc. Fly-in successful. Most of you were mentioned in the report in last month's *Edge*, but I would like to make special mention of the efforts of **Charleen Beam** for importing the "brats" (no, she didn't bring any kids, they're hot dogs, er sausages, er...); **George Gennuso** for his tireless setup efforts and expert brat incineration technique; **Doug** and **Gail Dodson** for running the ramp and the food line, respectively; NLE **Erbman** for just generally being in charge of everything; **Bernie Bakken** for his critical Chapter 1 intel; and, of course, **Pete "Paddles" Moore** for waving in all the spot landers. Thanks also to Fly-in namesake, **Scotty "Doc" Horowitz** for gracing us once again (and for bringing **Shannon** along!). Finally, a BIG Chapter 1000 Thank You for **A.V. Aviation** for allowing us to use their facilities.

See you around the airport!

- **Gary Aldrich**, Kommanding

New Members

Last month we welcomed **Phil Edwards** to our chapter, and Phil no doubt noticed the hazards of the newsletter editor relying on his fading memory. Phil is a test pilot at the 418th FLTS, not the 416th as previously reported. It won't be the last error you see in these pages.

This month we welcome another fine Air Force Test Pilot to our ranks. **Dave Evans** is working as an instructor pilot at *Project Police Central*, also known as Test Pilot School. He has returned from Florida with his wife **Windy Winters**, and will soon be bringing his Cessna 152 back to California if he hasn't already. He is also building an RV-4, which has progressed to the "big parts" stage. Dave is a member of TPS Class 95A ("Spin Doctors") and is noted for providing some brake parts to now Chapter 1000 member **Ed Dutreaux** after he melted his Nylaflo brake lines on that long taxi in for the 1995 Edwards Open House. Welcome to the chapter Dave!

Mauro Mezzacappa Recovering

As reported last month, Mauro Mezzacappa of our Brazilian detachment had heart surgery. Here is the update on his condition:

"Mauro went in for surgery on the last weekend in May and spent the next few days recovering at the hospital. The surgery was successful and he has since been resting at home, certainly reading a lot of aviation books to help speed up his recovery."

Sun'n Fun 1999

or

Doug, Gail, Gary and Russ's Excellent Adventure



(We pick up the story at Lubbock International (LBB), Lubbock TX)

VFR on Instruments

After eating our fill, and thus recomputing our Weight and Balance, we headed back to the airport to resume the flight. After another plumbing check, we paid for the fuel using the AOPA discount. Strap in, fire up, check in on mission, and taxi down for the run-up. We probably confused a Comanche who thought he would use some nose position to try to squeeze in between us, but we both taxied out when Tower cleared us as a flight.



On climbout, Gary offered me control of the aerospace vehicle. I accepted, and started my best attempt to fly formation with the Mooney. We were on his right wing, and I was in the right seat. Eventually I noticed that I would tend to drift into a position where the lead airplane was positioned such that one eye could see lead but the other eye was blocked by the compass. As my eyes are not programmed to focus at such disparate distances separately, my processing kept registering faults as I tried to move lead out of the compass.

After reaching our cruising altitude and having enough of that, we took the lead and I continued to fly toward Waco, our destination for the day. It was interesting trying to keep the airplane going in the right direction. Out west here or in Colorado it is clear enough (usually) that you can pick a point on the horizon and fly toward it. This helps keep you at least close to the correct heading. This system breaks down when you run into haze. There was still plenty of visibility to be legal VFR, but no horizon per se. As you looked off into the distance, your vision just sort of terminated in white muck.

Therefore, the only heading references were inside the airplane. The mag compass would oscillate ± 10 to 20 degrees, and the directional gyro was "way over there" with plenty of parallax. That's my story and I'm sticking to it. Besides, Doug didn't seem to mind. He said that all of the little heading corrections gave him something to do as wingman.

Being out of practice, it was taking most of my available processing staying (close to) on altitude and (close to) on heading. The longer I flew, the less clue I had as to where I was. We passed over Abilene, correctly identifying Dyess AFB and a whole mess of B-1s and Abilene Regional Airport. Heading toward Waco, we opted not to follow the airway, but proceeded direct to the airport. Somewhere in here the general color of the Earth started to change from brown to green.

I kept going the direction the GPS told me to, and eventually Gary decided to pull up the chart and try his hand at some of this navigating stuff. The GPS told us it was time to descend, so we did, still having no idea where in the haze the airport was. I also hadn't even looked at anything to get a clue how to find the airport. Eventually I started to break out a large lake. Figuring that would be a significant landmark, I asked Gary where the airport was relative to the lake. Turns out the airport is right on the

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shore of the lake. "Waco Approach, Six-Niner-One Flight has the airport in sight."

I turned the aviating duties back to Gary, and, feeling a bit more confident, he called in for landing as a flight. We were cleared for landing, and Doug dropped back for spacing. After the Skywagon landed, Doug called the tower to confirm that he was cleared to land. Tower answered back in a scolding tone that when he cleared the flight to land, that was good for everyone in the flight! Ouch! We won't make that mistake again...

Route of Flight: LBB – ABI - ACT. Flight time: 2.2 hours.

Taxiing in, Gary called Texas Aero, the local FBO, for instructions on where to park for overnight tiedowns. We were directed to the appropriate place, then noticed that Doug had pulled up right in front of the FBO, and there was a marshaller directing us over there. Figuring Doug must know something and not wanting to ignore the marshaller, we taxied back over there. Once we got there and shut down, the "line guy" figured out we were staying the night, and told us we were right to begin with. Fire it back up, taxi back over to where we started.

Climb out, tie it down, pull out the stuff needed for the night. Then we were greeted by...Doug Dodson. Except this time it was Doug Dodson Sr, who had come to take us home and put us up for the night.

Buzzard Billy's

That night we had dinner at Buzzard Billy's, a restaurant built into an old warehouse. Here Doug introduced us to the concept of "You're not waiting unless you're waiting on a beer." This restaurant is known for Cajun food, even though it's still a good distance from Louisiana. We tried the "Alligator Fingers" appetizer, but it didn't live up to our expectations. The rest of the meal was excellent, and good times were had by all. *Project Police* endorsed.

"Hey Redbird, This is Toucan"

Saturday morning, 0430, with the big "O," came very early. We arose, reconfigured the room back to its normal configuration, and were greeted by a wonderful pancake and sausage breakfast. After happily consuming breakfast, we piled back into the truck and headed out to the airport.

Preflight was by flashlight, as the sun had not been so nice as to awaken yet. Checking the weather on the computer indicated that we shouldn't have any problems completing the day's flying VFR. Checking the weather the old fashioned way (looking up to the sky) seemed to indicate through the moonlight and early dawn that the cloud cover was light and quite a few thousand feet up.

Load up, get in, strap in, fire it up, and check in. We called tower and received permission to taxi. As the sun started coming up, we took off opposite direction to the day before, so we were climbing out over the lake. A turn to the left and we were off to Natchez, MS.

Execution of the plan rapidly became off-nominal, as at about 1500 MSL (1000 AGL), 43Q, in the lead at this point, started to disappear into the clouds. Apparently, the height of the cloud base was inversely proportional to the height of the sun. The sun comes up, the clouds come down. Gary called for Doug to come back down where we

could maintain visual contact. Looking ahead, it didn't look like it was going to get any better. Since both Gary and Doug were instrument rated, there was no good reason to stay down in the bumps scud running. The clouds were fairly bright, so they probably weren't all that thick.

Gary called Waco Approach, explained the situation, and requested an IFR climb direct Natchez. Approach directed Doug to turn 30 degrees left for separation and gave him a separate squawk. We were then cleared to climb on heading to 7500 feet. Heading up, we broke out VFR at 3000 feet. We reported this to Approach, and Doug, currently climbing in the soup, was happy to hear it. At this point, we requested to cancel IFR and continue VFR on top, direct Natchez. By now Doug had broken out and, separated by about 4 to 5 miles, requested a rejoin. The approach controller obliged, and gave him a vector to rejoin. Either the controller thought Doug was in a T-38 or just made a mistake, because the heading he gave him was more than 90 degrees off of our heading.

An ongoing theme of this trip was the importance of communications. Flying formation is immensely easier if a mission frequency is used for air-to-air communication separate from the ATC frequency. ATC would appreciate you not clogging up their frequency if they knew that you were actively not clogging it up. Here's a good reason to have two radios in your airplane.

Realizing that we were actually unjoining instead of rejoining, Doug put into action our self-rejoin plan. At least it would be a plan if we had actually discussed it. Even so, it worked pretty well. All it requires is a GPS or similar type navigation equipment in each cockpit. Doug asked us on mission freq what bearing we were showing to Natchez (HEZ). He then flew until he intercepted the same bearing on his GPS. He then asked us for our distance-to-go to Natchez. Based on this, we could determine who was out in front. In this case, Doug was behind us, so he pushed the throttle up and slowly started gaining on us. Of course, it's best to have some altitude separation while doing this until the wingman has visual contact with lead. For a five minute separation to climb through the clouds, Doug finally came aboard about an hour later. Of course, we could have orbited over a designated point and rejoined quicker, but since we were only about halfway through the leg when we rejoined, this technique resulted in no lost time.

Of course, the down side to using a mission frequency is that you're not the only one who has figured out the utility of an air-to-air frequency. As a result, it can sometimes be challenging to find a clear frequency that isn't being used by UNICOM, CTAF, ATC, or somebody else. The affected area can be rather large at altitude. Over Louisiana we heard an airliner report to his dispatcher that he was on approach into Cancun! Probably the 3-sigma radio call.

Even so, you can run into yahoos a lot closer. While we tried to keep air-to-air transmissions limited to those items necessary to accomplish the mission, there are those who think the aircraft radio is just another telephone. They'll run on and on in conversation, usually on topics that could wait until after landing. I remember one discussion where one yahoo was giving his buddy updates on his current airspeed about every five seconds.

But by far the most memorable yahoo was Toucan. We heard on the radio (imagine this in your best Texas redneck voice) "Hey, Redbird! This is Toucan. Redbird, can you hear Toucan?" No response. Okay, nothing out of the ordinary. Until three minutes later when we heard it again. And three minutes after that. And three min...well, you get the idea. Never any response. We were debating responding either as "Hey Toucan, Redbird called. He won't be up today" or "Hey Toucan, why don't you try the telephone?!" Being the good citizens we are, though, we did nothing, knowing eventually we'd be out of range. Even so, ol' Toucan was a hot topic of discussion when we got to Natchez.

Eventually, we crossed the Mississippi River, and the clouds had broken up sufficiently to descend VFR into Natchez. We landed separately, parked, and ordered up fuel.

Route of Flight: ACT - HEZ. Flight time: 2.3 hours.

As the aerospace vehicles were being serviced, we did the requisite plumbing check. Finding everything in order, I pressed on to investigate the rest of the terminal which looked like it had been transported straight out of "Gone With The Wind." I climbed the spiral staircase upstairs where I found a Coke® machine, a small dining area, access to the roof, and a nice window overlooking the ramp. Turning to leave, I saw "LV's Restaurant," which consisted of a kitchen roughly the size of a typical household bathroom (qualitatively: small). No one was there, as we would find out it was only open Monday through Friday. The menu was posted, and feeling I needed some mental exercise to stimulate my brain, I set about memorizing it. I still remember it perfectly: you could get a hamburger, a cheeseburger, and french fries. It had an interesting charm to it, and the locals said the food was excellent. We noted that for the return trip.

Follow the Yellow Brick Road

Using the DTN terminal provided, we rechecked the weather along our route of flight. We also spread out the sectionals and reviewed. This leg was the most non-direct of all of the legs. This was to thread our way between the plethora of MOAs and restricted areas operated by Pensacola NAS, Eglin AFB, Cairns AAF, Tyndall AFB, Moody AFB, and who knows what other military bases.

We returned to the aircraft, did all of the usual stuff, and departed the airport. Just to be different, Gary decided to leave Doug in the navigation lead for this leg. This worked out well, since Doug's primary navigation means was by VOR, and this leg was going to require flying from VOR to VOR.

As we threaded our way down through all of the MOAs, we started to hear other aircraft checking in with ATC, all of whom seemed to be going to Lakeland.

As we flew past Eglin AFB, I was able to convince myself that I was seeing several of the various ranges where I had conducted missions from 1985 to 1989.

We had been getting really good service out of ATC up to this point, with each facility handing us off to the next. Somewhere around Marianna FL we were informed "Radar service terminated. Squawk VFR. Tallahassee Approach is not providing VFR advisories." Later we

would figure out (from other pilots calling Tallahassee approach that hadn't gotten the word) that Tallahassee Approach was full up handling the IFR traffic into Lakeland.

We continued on, identifying Tallahassee Commercial, which was little more than a runway cut out of the trees. We noted this for our return trip, not knowing then that this little piece of intelligence wouldn't be of much use.

Cross City Gaggle

During our initial flight planning phase, Doug had originally proposed Tallahassee as our final fuel stop before wading into the fray at Lakeland. However, I found in the *Hot Line* section of the March 1999 *Sport Aviation* a short blurb saying "Cross City, Florida – EAA Chapter 98 is offering a hospitality stop for persons flying or driving to Lakeland for Sun 'n Fun 1999 at the Cross City, FL Airport (CTY), located approximately 115 nm NW of Lakeland. Refreshments, fuel, camping, showers, meals at an on-airport restaurant and local transportation to motels will be provided throughout the fly-in dates..." Well, we figured that anyone with the guts to openly invite the *Project Police* in through a national magazine was certainly worth a visit. We would later find out that this was a good move.

Tallahassee pretty much completed our trek eastward as we turned more southward toward Cross City. We tuned up the Cross City UNICOM to try to get an idea of what was going on. This turned out to be less useful than we had hoped. It seems that at least six or more airports were on this frequency from mid-Georgia to mid-Florida, and they were all busy. Since this part of the country is pretty flat, there was no terrain to block the transmissions from airports over 100 miles away.

As we got closer to the airport, we started to pull out of the radio traffic who was really in the pattern or departing the field. This encouraged us to scan the skies for traffic even more than when we fly in R-2515. Rather than confuse the issue with arriving as a flight at a congested airport (the other folks were probably already confused, why make it worse?), Doug took the lead and called his pattern entry. We planned to pull in right behind him, but out of nowhere appeared another airplane to the right on extended downwind, aiming for the same time and space we were. Rather than fight over it, we did an S-turn away from traffic to pull in behind this aircraft that was trying to cut us off. Little did we know that this was just practice for the Lakeland arrival.

Cross City is set up with two large runways in a T configuration, and the active runway was the stem of the T. Where we wanted to go was at the top of the T. Going around the pattern, we noticed that the departing traffic was so backed up on the taxiway that pulling off the runway like you would on any normal day would certainly put you beak-to-beak with some guy anxious to get to Lakeland. The obvious solution was simply to roll all of the way to the end of the runway, where it intersected the other runway and continued across to another taxiway. This is what we did, and it was a preview of things to come with multiple arriving aircraft on the same runway at the same time.

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Route of Flight: HEZ – MCB – LBY – PICAN – GCV – (unnamed intersection of V11 and V241) – CEW – MAI – SZW - CTY. Flight time: 2.3 hours.

As promised, EAA Chapter 98 was there to marshal us in, greeted us warmly, took our fuel order, and showed us to the restaurant. They took care of the grunt work of servicing the airplanes while we made the requisite plumbing check and then sat down for lunch. The restaurant was quite busy with all of the Sun'n Fun travelers, but the service was good, and the food would probably have ranked highly on the *Project Police Airport Restaurant Food Rating Scale* (details yet to be published). I can't make a definitive statement on this because of a curious omission from the restaurant menu. It was impossible to order a cheeseburger, the standard of comparison of airport restaurant food. As such, all ratings were estimated/extrapolated from the fare available.

Into the Target Area

As we were sampling the local fare, the fine folks from Chapter 98 refueled the airplanes and brought the tickets into the restaurant. Between the calls of "Who had the turkey sandwich" were the calls of "Who has the Skywagon 61691?" After paying for lunch, we went out and paid for the fuel. We thanked the folks from Chapter 98 and presented them with some of the coveted EAA Chapter 1000 business cards.

We taxied out, narrowly clearing a Piper Cub, and joined the long in-trail formation taxiing to the end of the runway. We reviewed the Sun'n Fun arrival procedures. We put Doug in the lead for this leg since he had actually been there before.

Eventually Doug was able to call for a flight takeoff and we moved onto the runway. After a normal takeoff and turn to the south, we set our course for the power plant at Lake Parker that was the IAF for the Sun'n Fun arrival. Using this waypoint instead of direct to Lakeland (LAL) put us on a course to just miss the Tampa Class B airspace.

Departing Cross City, we changed back to the approach frequency, even if they wouldn't talk to us. Thus we left the Cross City gaggle behind us. After a while, we changed over to the Sun'n Fun arrival frequency. Much to our surprise, the ATIS was directing us to announce our arrival at Lake Parker instead of just monitoring as directed in the NOTAM. Okay, we can be flexible...

Of course, the result of this change was that now we started hearing radio calls from all sorts of airplanes, most of them with the stealth switch in the ON position. It wasn't bad early on, but by the time we had visually identified Lake Parker and were starting to identify the power plant, at least I was starting to get a little nervous that I was looking right where these airplanes should be and couldn't see any of them.

We made the turn at the power plant, and Doug did such a good job of making his radio call that we validated the requirement to circle the lake a few thousand times. We were in trail formation at 100 KIAS and a comfortable distance on altitude (per the arrival procedures) when the fur ball began. One airplane flew directly under us, and I doubt he ever even saw us. Gary started to slow to about 80 KIAS to get some spacing on this inconsiderate line-cutter, when we heard the Cessna 170 behind us call the

controller at Lake Parker whining that "I can't go that slow, can I pass him?" A Cessna 170 that can't fly at 80 knots? Yea, right. So Mr. Whiner passed us, further compounding the spacing problem.

We finally got sufficient spacing that we felt comfortable, and turned south at the "Orange Ball Water Tank" and followed the strobes toward the field. About the time we got to the point that everyone else turned downwind, we heard "High wing turn downwind." So we did. Wait a minute...where'd that high wing airplane at 9 o'clock come from? Apparently he was following us and thought the radio call was for him. Having already shown a high level of dooficity, he continued unaware of what was going on and moved up in front of us.

So now we've progressed from being right behind Doug to having three airplanes between us. We flew downwind, base, and onto final. As we were lining up, we got a call from the tower, something like "White high wing Cessna, be careful of this guy in front of you. We have no idea what he's going to do." Okay...so we were directed to land on the second circle, where we actually did touch down and rolled out to the end.

Route of Flight: CTY - LAL. Flight time and LAL taxi time: 1.4 hours.

We followed the parade down the taxiways, and noted the Super Cyclone prototype (kit built Cessna 185 clone) as we taxied by. We taxied pretty much the full length of the airport, dutifully showing our "GAP" parking sign (that's General Aviation Parking, not a clothing store, although we might have parked there if it was closer) to anyone who cared to see it, and almost got some Ground Marshaller (that's a pun) to take home when one cut right in front of our prop on his little motor scooter. We eventually came to one marshaller at an intersection holding up a sign asking if we wanted parking or one-night camping. We held up the "GAP" again, expecting to go over where Doug had just gone. Not so fast, Moosebreath. He sent us the other way. Doug claimed to have shown the same sign (it was identical—I printed them both from the same page of the same file), and got sent where he did. Apparently the marshaller was just asking the question for fun and then sending you wherever he felt like.

Well, finally, we got to pull the big red knob to idle cut-off for the last time and declare "Victory!" At least "victory" as in we had made it to Sun'n Fun. We then started the fly-in litany of twisting the tie-downs into the ground and securing the airplane, pulling out the baggage, getting oriented, etc. Doug and Gail walked the several hundred feet over to where we were, and then the mobile registration mini-van came over and exchanged our money for stylish armbands and lovely printed programs.

With everything in order, we proceeded over to meet the remainder of our party, **Nathan Davis** and **Chuck Rider** who had flown Nathan's Piper Aerostar (twin-engined twin-turbocharged mid-wing go-fast aerial contrivance) down from Indiana. After brief greetings all around, Doug's mom, **Patty Parillo** pulled up in a mini-van that almost had enough room for all of us. We tossed the stuff in, crammed ourselves in, and set out for the house.



“You’re Not Waiting Unless You’re Waiting On A Beer”

After settling in and linking up with **Ron Parillo**, we headed out to Hops, an appropriately named restaurant. Like every other place in Lakeland that week, they had the big sign out front welcoming Sun’n Fun attendees, and from the crowd that greeted us, you might think they’d all come.

Hops’ claim to fame is that they have a brewery on the premises and brew their own brand of beer, ale, and other beverages. Stepping up to the bar, we met **Hal Mandley**, a Glasair III builder who was named Grand Champion at Sun’n Fun 1998. Here Doug re-introduced us to the concept that “You’re not waiting unless you’re waiting on a beer.” A couple of trays of samples came by to tantalize us while we were waiting. When they finally came to seat us, I almost wanted to ask if they would wait until we had been able to sample everything on the menu.

We were finally seated, and Hal joined us. Everyone seemed to enjoy their meal. I had the specialty of the house, the “Brewmaster Steak” and can highly recommend it. I’m one of those guys who likes his meat dead, i.e. well done, and this was one of the best steaks I had eaten in years. It’s not easy to cook a steak well done without burning it, so I figure that if they can do that, they can do it however you like it.

Onward Into The Fray

Sunday morning came and almost went. The collective masses finally arose from groggy slumber brought on by one or two days of semi-intense aviating somewhere around 1000. Doug fired up his laptop to check his e-mail (some guys just can’t let go) and we milled around waiting for someone to take command. Gary and I iced and filled our respective Camelbak® Hydration Systems. Each of us collected our vast array of personal electronic devices, programs, plans, taskings, etc. We were ready to take on Kosovo, at least if they were having a fly-in.

After a while, someone took command and rallied the troops toward the Ground Assault Vehicles. Needing to further fuel up for the assault, we pulled in to the Golden Corral to sample the breakfast buffet. Okay, so we did a little more than “sample.” Everyone lumbered away from the table after a USAFA standard “full and satisfying meal.”

The first challenge for this *Project Police* low level penetration was the traffic. Apparently everyone else in town had heard we were coming and wanted to get in on the action too. Of course, Sunday being the first day of the festivities and on the weekend, attendance is very high. We finally crawled into the parking lot and then increased our ground speed by parking and walking. *Project Police Tactical Communication Devices (PPTCD)* were distributed, tuned, and locked to the correct frequency. Call signs were Kommandant, Webmeister, Opie, Gail, and Waterboy (Chuck), who had programmed his fancy-schmancy ham radio handheld to work with the *PPTCDs*. After a short training session on the ring feature, we set out toward the main event with communications somewhat assured.

Doug and Gail stopped to pick up a way-cool admission armband for Patty, while Gary and I proceeded unescorted into the fray, mumbling something about Giulio Douhet and the bomber would always get through.

Coming in the main entrance of Sun’n Fun first takes you through all of the forum tents. You can stop here and get initial training on just about any skill you need to build an airplane. We found the fabric covering booth and poked our heads in to see if *PPO* Jon Goldenbaum was present. Not only was he present, but he was in the process of waxing eloquently to the assembled masses about the Poly Fiber system and the importance of following Ray Stits’ Three Commandments (1. Read the Manual. 2. Don’t substitute materials. 3. Do it right the first time.) We stood ominously behind the assembled throng, waiting for him to look up far enough to notice our presence. He finally did, and now we knew that he knew that the supporting contingent of the *Project Police Tactical Assault Force* were in town. Jon was wearing his standard red Poly Fiber uniform shirt, but has since finally been supplied with his own black *PPTAF* uniform shirt which he can wear for demonstrations at future fly-ins. Should look really cool (and be really HOT!) with his big black hat.

Continuing on in to the fly-in in search of a prototype Bearhawk, we next started to pass through the sea of vendors. We saw the shop giving out with the official EAA stuff, from shirts to patches to whatever else they trucked in from Oshkosh. This was only of noted interest until we caught a glimpse of the cashier, who was none other than honorary *PPO* and *Vice Grand Poobah for Chapter Stuff* **Bob Mackey**. Was this the EAA headquarters equivalent of washing dishes to pay for your supper, or just a clever way to meet and talk to EAAers? We didn’t find out, but we did stop by to assure him that his supporting *PPTAF* was present.

It’s tough to miss the Van’s display area, since it’s very popular. We saw an interesting solution to the big problem with bubble canopies, namely solar heating. I took this picture of a sunshade for **Paul Rosales**. When I asked him if he had ever seen one, his reply was that he had one in a box awaiting installation.



Proceeding on following vague directions, we continued in search of a Bearhawk. As we moved into the homebuilt area, we stopped by the Super Cyclone to do a quick comparison with the Fighting Skywagon. Gary was able to quickly identify many similarities, such as the float and ski attach points, strengthening doublers, and the gull wing door option. We found out from the vendor that the motivation behind this Cessna 185 clone was the same as that for the Superior Air Parts XO-360 engine. In this case, they were already making so many replacement parts for the Cessna 180/185 market that somebody noticed they were almost building the entire plane. So they decided "Why not make the last few parts and market the whole thing as a kit?" You can find out more about it in the May 1999 issue of *Kitplanes*.

We worked our way down the homebuilts section, seeing lots of stuff we'd seen before. We even noticed a Boredom Fighter. Finally we saw in the distance a very familiar airframe. Yes, they had parked the Bearhawk about as far away as possible without being in the next fly-in. We made our way over there, where I dropped on my knees and started bowing profusely in front of the tire, crying "We're Not Worthy! We're Not Worthy!" Well, okay, maybe not, but I did think about how funny and silly it would look if I had done that. In reality, I introduced myself and Gary to Mike Meador, who was currently minding the airplane. I had known Mike by e-mail and phone for about three years, and finally got to meet him face-to-face. Then again, I had bought the plans for the Bearhawk three years ago and had been building since then without having ever seen the prototype.



Mike then proceeded to show us around the Bearhawk, first putting me in the driver's seat, which was an interesting feat without an auxiliary step. Gary tried out the copilot's seat and found it to be Level I. We did notice that the width of the cabin was a little less than the Fighting Skywagon, but still well on the adequate side. Next I tried the cabin exit procedure, which could border on a falling out procedure while gaining experience. I also tried out the back seat, which is surprisingly far back from the front seats. It's not that odd once you realize that most of the rear seat legroom is horizontal, not vertical. The rear seat was also very nice, as I probably spent half an hour there asking Mike questions, reviewing the new book of fuselage construction pictures, and taking my own pictures.

I finally got out a little before 1330 and started taking more pictures. Mike then informed us that around 1330 the fly-in staff would start clearing everybody out of the homebuilt area for the 1400 airshow. It seems the homebuilt parking is on the wrong side of the airshow deadline.

Fortunately, after 3 years of studying the plans and building the airplane, I found nothing really surprising about the Bearhawk. Everything was pretty much as I expected it to be, so I knew I could continue building and end up with an airplane I would be happy with.

Since it was time to leave, Mike asked me if I had bought my rod ends yet. Realize that the Bearhawk uses 10 rod end bearings as the hinges for the flaps and ailerons. These are a hot topic of discussion amongst the builders, because the price new in the Aircraft Spruce & Specialty catalog is \$49.95, or a total of \$500 for the set. Not much different in anyone else's catalog. Mike told me he had seen some available (used) for much less, and would show me where they were. As we headed out, we met up with Bob Barrows, the Bearhawk designer, who said that he had just seen some NEW rod end bearings for \$12.95 a piece. Needless to say, this got my attention. Bob took me to the location of the bearings, and I snatched 10 of them up, thinking I had just beat the system. After all, if the designer of your airplane tells you that this is what you need, it must be right, right? We won't go into how upon returning to California I found out that the shanks were 0.553", not 0.625", and all of the modifications I had to make to the holders to compensate for this difference. It's not that they won't work, it's just that it took some redesign effort.

After completing this purchase, we were right outside of Exhibit Hall B, so Gary and I wandered in there. After passing through there, we decided to go back to the beginning and start with Exhibit Hall A. Here, amongst other things, we found why Bob Mackey called it the old pilots building. On one aisle was **Bob Hoover** signing copies of his book. One aisle over was **Paul Poberezny** signing copies of his book. Completing Exhibit Hall A, we moved on over toward Exhibit Hall C.

Just outside of Hall C was a distributor demonstrating and selling the Henrob 2000 welding torch. This is the pistol grip torch (formerly Dillon torch from Australia) that you've probably seen in ads in your favorite homebuilding magazines. This caught my attention, since I was planning to order one of these as soon as I got back.

I stopped to ask what the show price on the torch was and a few other questions. Of course, any question to a vendor launches him into his prepared sales pitch, or in this case demonstration. I figured the demonstration would be a good review, so I didn't stop him. Later, though, I found out just how difficult it can be to get a salesman to stop trying to sell you a product long enough to actually buy it.

While I was purchasing the torch, we had our first ops check of the *PPTCDs*. Doug made an all hands page to meet at the Glasair booth for departure around 1700. I heard it and responded. Communications like this are great when the group is spread out over many, many acres. Gary did not respond, and later claimed he had never heard the page. As best we can determine, he was inside Exhibit Hall C at this time, having wandered away from the welding demonstration, and the steel building cut off his reception.

I finally roamed into Exhibit Hall C to see the Aircraft Spruce booth prominently shown in front of the door. Also saw the computer displays that JP Instruments were selling for cockpit use. I called on the *PPTCD* inside the building and was able to rejoin with the Kommandant. We couldn't help noticing the temperatures inside the building, which were hovering somewhere near the 90s. We decided that we were glad that we weren't vendors stuck in the building all day in that heat. Of course, we had our Camelbak® Hydration Systems to combat the heat.

At the appointed time, we congregated back at the appointed site and made our way toward the exit. Remember all of those folks who had heard when we were arriving and got in line ahead of us? Well, it seems they told all of their friends about it and everyone got in line ahead of us for the departure. It took us about two hours to get out of the parking lot, and a fraction of that to make it back to the house. At one point Doug and Gail got out of the van to do an impromptu Port-a-Potty functional check, walked to the front of the line of cars to see what was going on, and came back to the van, during which time we had moved exactly 0.0000 feet (0.0000 meters, or 0.0000 metres). By the time we finally made it back to the house, we decided to just order pizza in for the night.

Photos, Photos, Who's Got the Photos?

We arose Monday morning, went through the usual routine of waiting to go until we realized that everyone was ready to go, and went for breakfast at Fat Jack's Delicatessen. Another excellent eatery and highly recommended during your trips to the Lakeland area, albeit a confusing name (+10 points for properly using the word "albeit" in a sentence). It appeared to look more like a restaurant than what I think of as a Delicatessen, but it didn't matter as the food was excellent.

The multitudes had had their fun on Sunday, so we got into the parking lot much quicker this time. In an effort to beat the system, this time we tried parking at the back of the lot so that we could make a faster escape.

We arrived after or during the completion of the Sun 100 race, so things were pretty much back to normal at that point.

Gary and I first went over to the Van's area because he had expressed an interest in evaluating the rear seat

room of the RV-8. He tried it on and found it to be much more roomy than the RV-4 he once flew in.

I then proceeded to the prototype Bearhawk and went through the process of exposing many, many rolls of photographic emulsion, in support of producing a Bearhawk reference CD, which I plan to do if I can ever finish writing this report(!).

The remainder of the day was spent roaming through the airplanes and the exhibit halls asking the same questions over and over again (What's your show price on a II Morrow SL-40? What about a Lightspeed 20K headset?), and seeming to get the same answer over and over again.

It's truly amazing what you can find at some of these vendors. If you were in the market for a GPS, you'd probably look for Garmin or Apollo or some name brand like that. Gary and I walked around the corner of an exhibit building to stumble up on a vendor selling generic GPS in a can (slightly dented). It was the most amazing thing.



We congregated about 1600-1630 for departure, earlier this day because we had to make it to the...

Glasair Hooters Gig

This is an annual event for Glasair builders started several years ago when two threads on Compuserve AVSIG collided, one talking about templates for measuring the accuracy of leading edges and another claiming that Hooters had the best buffalo wings (You'll have to figure out the connection yourself—we ain't gonna spell it out for you—after all, this is a family-friendly newsletter). Doug had challenged other Glasair builders attending Sun'n Fun to bring their leading edge templates and join him at the Lakeland Hooters on Monday night during the show (see June 1996 *The Leading Edge*).

Of course, this was now seen as an official *Project Police* event, so all of us so equipped wore our black *PPTAF* uniforms. I was surprised and pleased when the girl at the door of Hooters didn't close the door in the face of these *nefarious* characters (Ref: *Pacific Flyer*) and ask us to leave. They actually seemed to welcome us in.



Of course, the presence of the shirts eventually evoked the question from the assembled Glasair builders (Gary and I were still welcomed as honorary Glasair builders, or friends of Glasair builders, or just as the *Project Police*, who are, of course, welcome everywhere. You know why.) as to what is the *PPTAF*. Taking a cue from two days of dealing with vendors, I started whipping out Chapter 1000 business cards and launched into my unrehearsed spiel about the *Project Police*. At this point, Nathan couldn't stand not being one anymore and whipped out his \$20 to sign up. He then turned on **Ron Cox**, who was known to have possession of a *PPTAF* black uniform shirt but not a legitimizing EAA Chapter 1000 membership card. Fortunately Ron had been smart enough not to show up in the shirt, or else we would have fined him \$20 dues on the spot. Ron saw that discretion was the better part of valor and pulled out his \$20 to join up and thus legitimize his possession of the shirt.

Project Policing on a Grand Scale

Tuesday was designated as *Project Police* uniform day, since we already had them out from the night before. We started out with another pass through Fat Jack's Deli for breakfast and then headed out to the airport.

My first reaction as we moved into the homebuilt area was "Where'd they all go?" It seems that the two big days at Sun'n Fun (and you may want to take notes here) are Sunday and Monday. After that about half of the homebuilts disappear to go home. Remember this if you're planning a trip yourself.

We started our *Project Policing* at the Glasair booth, where we checked the leading edge of the high-altitude research Glasair III for accuracy. Happily, the template fit.



Doug mentioned that he needed to see the Bearhawk since he had never seen one and so he would know what I had been talking about. Based on this, we moved our *Project Policing* there. Additionally, since it was at the end of the area, it would allow us to work our way back to the rest of the show. Doug tried the Glasair template, and it didn't fit.



Nathan was impressed with the Bearhawk, thinking that it looked something like an oversized Piper Cub. As such, he declared it the "**Bubba Cub**."

After the Bearhawk, we took up inspection of the Boredom Fighter "Gigi" and gathered some pictures and information as requested by Jim Piavis. This particular airplane was featured in the August 1997 *Experimenter*, and strictly speaking is not a Boredom Fighter. The major difference is that the builder decided to design his own steel tube fuselage instead of the original wood fuselage. Otherwise it is standard Boredom Fighter. We particularly enjoyed the additions of the wing-mounted machine gun and the underwing bombs. We did not determine if the bombs were releasable in flight. The Glasair template did not fit.



As we were critiquing the Boredom Fighter, our intense concentration would be periodically interrupted by the sounds of Mustangs overhead. No, not P-51s, but the Stewart S-51 and the Thunder Mustang screaming around the warbird pattern. When we first saw them, the S-51 was out in front. A little while later, the Thunder Mustang was out in front. Then they seemed to be on opposite sides of the pattern, then back again as the Thunder Mustang lapped the S-51. The S-51 gets the nod for accuracy of replication, as it is built of aluminum like the original P-51. If we can assume that both airplanes were flying the same pattern, then the Thunder Mustang gets the nod for speed and accuracy of 12-cylinder sound reproduction, even if it is a plastic airplane. Each time the Thunder Mustang went overhead, Doug and Nathan were salivating madly. No mention of any other bodily functions. Doug tried to convince Gail that he “needed” a Thunder Mustang for his “emotional well-being.” Gail didn’t seem convinced.

Next we cruised over to the KIS Cruiser, but **PPOs Vance Jaqua** and **Rich Trickel** were away from their posts. I had talked with both of them the previous day and assured them that the airfield was in the good hands of the **PPTAF** (now we’re doing insurance ads?). The Glasair template did not fit.



Close by was the Polen Special, which was a long time favorite of Nathan’s when first mentioned in *Sport Aviation* many, many moons ago. Nathan said that he had tried to redraw it many times as a two-seat airplane, but could never get it quite right. Comments were made about it being the Thunder Mustang of a previous age, except, of

course, no plans were ever sold. The Glasair template did not fit.



By this time, the Thunder Mustang had landed and was awaiting refueling. We hurried over there to seize the chance to photograph the **PPTAF** with this studmuffin of an airplane. Nathan was dehydrating from the salivation. Once again, the Glasair template did not fit. It seems that only a Glasair could be the princess in this Cinderella story.



(Once again we’re out of space. Tune in next month for the Sun 60 race from the inside, the epic return trip, and lessons learned.)

- Erbman
Official Trip Historian

Web Site Non-Update

No update this month, as press time is far too early this time to get a meaningful hit count. Besides, I’m out of space.

Chapter 1000 Calendar

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

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) 609-0942

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

Sep 1: EAA Chapter 49 Monthly Meeting, 7:30 p.m., Sunnysdale School. 1233 S. Ave. J-8, Lancaster, CA. (661) 948-0646

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 (661) 609-0942

Sep 18: EAA Chapter 49 Old Fashioned Fly-In, General William J. Fox Field, Lancaster CA (661) 948-0646

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

Oct 6: EAA Chapter 49 Monthly Meeting, 7:30 p.m., Sunnysdale School. 1233 S. Ave. J-8, Lancaster, CA. (661) 948-0646

Oct 9-10: Edwards AFB Open House and Airshow

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

Oct 12: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., Edwards AFB. Test Pilot School, MOL Room (661) 609-0942

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

Nov 9: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., Edwards AFB. Test Pilot School, MOL Room (661) 609-0942

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

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

For Sale:

Sonera IIL 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

Rotax Engine Model #583, 2 cylinder for sale. New with engine mounting, twin Bombardier carburetors, exhaust system, ignition system, reduction transmission for aviation application, service manual, shipping crate and small set of factory tools. Deborah Gravelle or Tim Watts, 707-523-3140, email creatopt@sonic.net

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:

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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 JULY AT TPS****PROJECT POLICE FINALLY MAKE IT****TO SUN'N FUN**