



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>

August 2002

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:



THE (SORT OF) ANNUAL OSHKOSH REPORT

Gary Aldrich and Russ Erb
Tuesday, 20 August 2002
1700 hrs (5:00 PM Civilian Time)
USAF Test Pilot School Auditorium
Edwards AFB, CA

You've seen the web site, read the report on AvWeb, and even seen the 2-hour coverage on Speedvision. Even so, you still feel like you haven't had a truly personal, complete report on what happened at Oshkosh at AirVenture 2002. You want to know what the **Vice Grand Poobah for Chapter Stuff Bob Mackey** has been doing in EAA Staff Meetings and if the fear of unscheduled **Project Police** visits interferes with his day-to-day duties. How can you find out what you really want to know about the big show?

Hmmm...we just don't know...

BUT...you can come find out what **Kommandant Aldrich** and **Newsletter Editor/Webmeister Erb** have to say about what they saw at the big show. Find out about the joys of traveling cross country in the VC-180 **Fightin' Skywagon**. Hear about shooting the perfect approach into Wittman Field. Hear about setting up the Command Shelter and surreptitiously making contact with other **PPOs** from the outlying Dets. Hear about running the gauntlet of the exhibitor's halls, where throngs of salesmen sought to separate our heroes from their hard(?) -earned money, giving them only trinkets in return. See some of these

trinkets, such as a midget welding torch that is far superior to any other torches marketed today.

So come on out to the USAF TPS and join in the fun. Don't be late or you might miss out on the chocolate chip cookies (C³s)!



Operation Rubidoux Sundown X

Last year, the Flabobians successfully managed to avoid "inspection" by the intrepid

Project Police by first moving the date of their Open House from February to September, and then by a lucky (?) break of scheduling the Open House while the Feds had the skies shut down to "those dangerous little airplanes."

Therefore, they are overdue for "inspection". Unwilling to let such a flagrant violation go uncorrected, your Board of Directors has authorized the formation of a **Project Police Tactical Assault Force (PPTAF)** to secretly infiltrate Flabob International Airport on 21 Sep 02.

All **PPOs** interested in serving on this mission are directed to contact **Erbman**, the official pre-raid coordinator, at 256-3806 or erbman@pobox.com. Those with available aircraft should include the number of seats they have available. Those interested in filling an available seat should express their interest to be put in contact with an available seat holder.

Further operational details will be included in this space next month and at the September chapter meeting.

Just An Old Fashioned Fly-In V



William J. Fox Airfield, Lancaster, CA, will be the site of the Fifth Annual "Old Fashioned Fly-In" Saturday, September 14, 2002. The event is open to the public. Pancake breakfast will be served from 7:30 to 10:30. The spot landing contest will be from 7:30 to 9:00. Lunch will be available from 11:00 to 2:00. Free raffle for fly-ins at 1:00. All day swap-a-ride. There will be no airshow, judging or registration fees. Listen to ATIS for spot landing and ramp

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parking information. For more information email ozzielevi@antelecom.net or check the web site www.eaa49.av.org.

Last Month's Meeting

EAA Chapter 1000

Erbman's and Opie's Abodes, Rosamond CA
1700, 16 July 2002

Gary Aldrich, Presiding

Human Factors Testing

This meeting started out at **Erbman's** new workshop in Rosamond, where the open garage door beckoned to **PPOs** to come and see the Bearhawk fuselage. One seat was installed, and the control sticks and rudder pedals were connected to the appropriate tail surfaces by nylon cord. This set-up quickly showed why nylon cord is not used for control cables (waaaaay too stretchy).

Each **PPO** was invited to sit in the seat and try to find a seat position that would suit him for control stick position, capability for full rudder deflection, and reasonable reach to the virtual instrument panel. Many sat, and all found a suitable position. The **Vice Kommandant** was rumored to be heard making airplane noises. We're not sure if he was making 2-cycle or 4-cycle noises, though. These data will be used to decide the final position of the various controls.

The standard Chewy Chips Ahoy were available, but these were quickly eschewed when **Donna Drucker** showed up with her home-baked **C³'s**, which were quickly consumed by the gathered **PPOs**, which numbered about twice what we normally get at a meeting. (**Bill Irvine** has **Donna** convinced that she has to bring cookies if she wants to attend the meeting, and who are we to argue with him?) The drink of choice, ice water on tap, was a big hit given the elevated temperatures of the time.

Unscheduled Project Police Raid (or is that redundant?)

After a fashion, we all departed for an unscheduled interim stop at **Waldo's** hangar, where we checked up on the latest on **Excalibur**, which is, of course, still not complete. On display was **Waldo's** proposed tool for steaming the leading edges of his plywood wing skins, plus the wing skeleton awaiting skinning. Maybe **Waldo** would be done now if he didn't spend so much time in AutoCAD drawing up cool 3-D pictures of spaceships and helicopters.

Of course, we also inspected and made comments about **Bushman's** Cessna 140 while he was not there to defend himself.

Feed Me! Feed Me!

Finally we moved on to **Opie** and **Gail's** for the main event. While several of us checked up on the Glasair progress, Chapter **Grillmeister George Gennuso** fired up the Chapter Grill and cooked up sausages and dogs to perfection, as is his custom. Much food was consumed and good times were had by all. The usual trip to the **Burger**

King Lounge was cancelled as redundant and inconvenient.

- **Erbman**

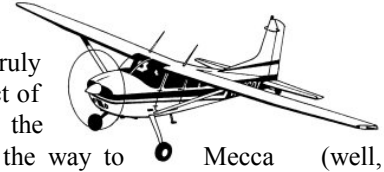
Pseudo-Secretary

Kommandant's Korner

Mission

completed! NLE

Russ Erb and yours truly committed a flagrant act of aviation by navigating the Fightin' Skywagon all the way to Mecca (well, Oshkosh, at least) and back...just as I threatened to do in last month's column. I'm not going to go into too much detail here as we are preparing a world-class briefing for this month's gathering on our airventures.



However, I will comment briefly on what I perceived to be a very well attended and executed AirVenture. I don't think I was alone in speculating on just what effect last September's events would have on our annual gathering on the shores of Lake Winnebago. Given the restrictions imposed on the General Aviation fleet in the aftermath of the attacks and the seemingly endless flow of TFRs and other legal posturings by the feds; I was prepared for a subdued turnout and generally somber mood among the attendees. Much to my pleasure and surprise I observed a decidedly opposite effect...both on the part of the visiting aviators and the exhibitors. I haven't seen the "official" stats on attendance, but I overheard a guy in the North Forty registration booth (with the word "chairman" on his ballcap) say that they had registered 15,000 aircraft and were estimating the gate at nearly 800,000 folks! Not bad, considering the depressing stories of failed FBOs and closed airports we've all been reading over the past few months. I realize now that I should have had more faith in the spirit and tenacity of the American sport aviator that is simply a reflection of the best ideals of this great nation.

Despite what appears to have been record attendance, the grounds were spotless, as usual; and the crowds were friendly and polite. In contrast, I can remember my first Oshkosh in 1982 when I was amazed at the crush of humanity in the exhibition buildings and endless lines for food and drink. The vastly improved and expanded facilities and armies of dedicated volunteers combined to generate an atmosphere that was, at once relaxed, and charged with enthusiasm for our freedoms of flight. The event organizers are to be congratulated, once more, on hosting just about the finest large gathering of any type I've ever witnessed. With that as a teaser, I'll close with my normal admonitions.....

Fly safe (and often and professionally) and check six!

- **Gary Aldrich**
Kommanding





Young Eagles Update

Hello All,
 Good weather, near calm winds, 6 pilots, 6 airplanes, and 6 ground crew combined on July 4 at Cal City to introduce 26 new Young Eagles to the wonderful

world of aviation!

The following pilots and aircraft participated:

Pilot	Type	#YE
Ron Alldredge	T-34 Mentor	4
John Bush	Cessna 140	4
George Heddy III	Cessna 172XP	4
Wen Painter	Cessna 182	7
Kevin Reilly	PA-28-201	4
Shel Simonovich	Grumman AA1C	3

The following assisted the rally as ground crew.

Bethany Alldredge	Miles Bowen
Bill Ratliff	Mercedes Ratliff
Karen Steinaway	Len Voelker

During the rally I spoke with Tom Weil, the Cal City Airport manager, and we agreed to make the July 4 Young Eagles rally an annual event. As always, many thanks to Tom and the Cal City Airport staff for their always cheerful support!

Remaining Rallies for 2002

September 21	Fox	8:00 am
October 19	Tehachapi	9:00 am
November 16	Fox	9:00 am
December 14	California City	9:00 am

- Miles Bowen

EAA Chapter 49/1000 Young Eagles Coordinator
 av_young eagles@yahoo.com
 (661)822-0806 (home)
 (661)275-6528 (work)

I'm Done With The Fuselage, Now Where Do The Wires Go?

EAA Chapter 723 will be hosting a Bob Nuckolls Aeroelectric Connection workshop.

WHERE: EAA Chapter 723, Camarillo Airport (CMA)

WHEN: 21-22 September 2002

HOW: Register at

<http://www.aeroelectric.com/seminars.html>

COST: \$150 for 2 full days of class

Coordinator for this event is Mark Swaney,
 (805) 488-6220

Project Police Aircraft Spotters Quiz

Finally! I actually got a response out of more than one of you guys on this one. The first correct responses was from our reigning **Project Police Aircraft Spotter Jim Piavis**, who wrote:

"OK. Now I'm back at home in-between jobs after 7 months of continuous travel...

How about a Republic XF-12? I believe that fits the ticket. Instead of all the gory details, see <http://www.air-and-space.com/Republic%20XF-12.htm>. By the way, it was somewhat tough, but the old-style stars-and-bars (or lack of the bar) at least gave a time frame...

Jim"

Correct answers were also received from **Lee Erb** and even **Gary Aldrich**.



But what about the mysterious **PPO** who was declared disqualified for mysterious reasons? That would be **Mike Machat**, whose "Complex Construction Involving Two Figures" pencil sketch introduced me to the XF-12/XR-12. If you don't remember that one, go up to the Raven's Nest at Mountain Valley Airport (Tehachapi), order lunch, and search the walls. It's there.

Well, as we would expect from any **PPO** in good standing, we did hear from Mike. Here's what he had to say:

"Sir, Airman Machat Reports As Ordered"...

Hey Russ,

Great newsletter, as always (I have a newfound respect for editors now), and I hereby disqualify myself from the contest, but will heed your call on your mystery aircraft - neat Seabee stamp also! Feel free to use the following info any way you wish:

Republic XF-12 (XR-12 new designation after 18 Sep 47) was built in 1946, and was considered to be Chief Designer Alexander Kartveli's aerodynamic masterpiece. Intended as the world's first dedicated photo-recon airplane, the XR-12 was designed for long-range Pacific Theater OPS at the end of WWII. A commercial version was to carry 44 passengers at 35,000 ft with jet-like speeds of 450 mph. Only the airliner version was called the "Rainbow", but the name eventually stuck to the XR-12.

Like the NAA XB-70 (more on that later), the end of the war and mission itself resulted in the project's cancellation, and a subsequent unit cost of \$1.25 million per Rainbow rendered it unrealistic to both American and

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Pan Am (who'd ordered 25 ea.) when the market was flooded with surplus C-54s for \$100,000. apiece.

Although mistaken by many as a turboprop, the XR-12 was powered by four P&W 4360 piston powerplants, with their turbosuperchargers ducted out the rear of the sleek nacelles giving a 10% thrust augmentation. (C-97 had same engines, but was 100 knots slower. NOTAM - aerodynamic cleanliness DOES count!)

Edwards' connection was the record-setting flight of XR-12 Ship 2 in October 1948, taking off with a downwind departure from Runway 24 at South Base, and flying to Mitchel Field (that's one 'L', not a typo) New York while taking a continuous strip photograph of the entire route! Developed in the darkroom onboard, the photo was handed to awaiting USAF brass upon arrival, and was unrolled on the floor of a nearby high school gymnasium. Article on the flight was featured in LIFE Magazine.

(The precursor to real-time recon imagery download?..)

OK trivia fans, how's this for a comparison? XR-12 and XB-70 were similar because:

1.) Both were radical and exotic airframes developed for a specific mission that was eventually cancelled (end of WWII for XR-12, ICBMs for the XB-70).

2.) Two prototypes were built before programs were cancelled, and were kept flying for test and evaluation at AF Test Centers. (XR-12 at Wright Field, XB-70 at EAFB.)

3.) Both were the world's fastest aircraft for their size, and both of their top speed records remain unbroken to this day (450 mph in level flight for the '12, and Mach 3.0 for the '70). Again, those speeds are fastest for large, multi-engined aircraft only.

4.) Both had variable-geometry nose sections with retractable visors for streamlining. XR-12's upper nosecone retracted into lower half of nose, exposing one large simple windscreen for night or bad weather landings.

5.) Both Ship 2 aircraft were the more advanced of the two respective airframes built, with a complete camera bay and darkroom facility onboard the XR-12, and advanced flight test instrumentation onboard the XB-70.

6.) Both Ship 2 aircraft were lost in accidents three years after they were built, resulting in the fatality of one crewman trapped onboard when the aircraft spun in. (XR-12 at Eglin in 1949, and XB-70 at Edwards in 1966).

Sadly, this is where the similarities end. XB-70 Ship 1 will live on forever, properly enshrined at the USAF Museum at Dayton. XR-12 Ship 1 was delivered to the Aberdeen Proving Grounds and blown up as a ground target.

Tipping my hand, as it were, anyone who has heard my presentations knows of my proud connection to the Republic Aviation Corporation at Farmingdale NY. My Uncle was an aeronautical engineer there, and designed the XR-12's beautiful nose section and windshield configuration. Quite a machine for 1946!

Best to all my fellow EAA Chapter 1000 PPOs!

Mike Machat

Editor, WINGS & AIRPOWER Magazines

After reading Mike's excellent writeup, I sent the following message to him to clarify some points:

As you guessed, you were the **PPO** who was disqualified, since I knew you knew what it was from your "Complex Construction Involving Two Figures" which is of course where I first heard of the XR-12. Interestingly enough, the second or third hit on Google for "XR-12 Rainbow" is the ad for the original on your web site! Thank you for reporting in as directed.

In the interest of accuracy, my understanding was that the end of the XB-70 was the SAM, not the ICBM. After Gary Powers took an unscheduled vacation to the USSR, the Air Force realized that extreme altitude was no longer an effective defense. This pushed the BUFFs down from high altitude and led to the B-1 which was specifically designed for low altitude. Since Desert Storm small arms fire, radar directed AAA, and desert warfare (no terrain to hide behind) have pushed everything up to medium altitude. Interestingly enough, it's really tough to employ a B-1 above about 25000 feet. Even a B-17 could do better than that.

I've read several places about the retractable nose/windshield, but I can't figure out the purpose. On the Concorde, it's driven by visibility at high angles of attack. Why on the XR-12? Did the curved windshield have too much distortion? Was it light reflection or rain rejection?

According to my Dad--one other reason for the demise of the XR-12: It used the engines that were needed for the B-36s, B-50s, C-97s, etc. I'd say that was almost true, as the XR-12 used a different model of the engine that had a variable discharge turbine (VDT), which I think used any exhaust gas not needed for turbocharging directly for jet thrust (as you said).

BTW, the Seabee art was chosen to fill that space because I knew there was one in the background of your drawing. Sort of a really obscure, subtle clue.

Erbman

Mike's response:

Erbman,

Thanks for the quick reply, and for clarifying those fine points. I'd understood that the XB-70s demise was a case of the new 'missile mind set' SAC Air Force making the case for ICBMs (Thor, Atlas, and Titan) as the third leg of the US nuclear 'triad', keeping B-52s with Hound Dogs to augment Polaris subs. I remembered that episode as also signaling the end of the LeMay era.

As for the XR-12 nose configuration, the flat-pane windshield actually served two purposes. First, it was a triple-laminated forward pressure bulkhead for the cockpit (I don't remember the exact specs, but the airplane was pressurized to an amazingly low altitude), and secondly, the glare, reflection, and distortion both at night and in the rain was quite formidable, according to both Republic and USAF flight test crews.

'Forgot to mention that the airliner version did NOT have the bullet nose, but had something more resembling the Comet /Caravelle nose section with a fixed, multi-pane windscreen.

Thanks again, and have a great weekend!

Best,

Mike.

So, feeling pretty cocky now? Well, here's another one for you. This aircraft was spotted by the **Kommandant** at the big Oshkosh show. Valid responses will only be accepted prior to the August meeting, since we're gonna tell you what it is there.



As always, send your guesses to your faithful Newsletter Editor at erbman@pobox.com or call or snail mail at the number or address shown on this newsletter. All will be revealed next month....

Bishop Young Eagles Rally Pix

Our illustrious Young Eagles Coordinator **Miles Bowen** forwarded us these pictures from the recent Young Eagles Rally in Bishop CA.



Fly Baby For Sale

Hi, My name is Lisa and I would like to submit some photos to you. I am selling my Fly Baby project

It has a continental 0200, prop, 2 completed wings, fabric for 2 wings, and instruments. Asking 5200.00 Or Best Offer. I was hoping you could show this around at your next Chapter meeting.

Thank you
lzamaripa@msn.com
559-352-8722 (cell)



Web Site Update

As of 10 Aug 02, the hit counter stood at **75290**, giving a hit rate of 34 hits/day for the last month.

Just a reminder that the EAA Chapter 1000 Web Site is hosted courtesy of Quantum Networking Solutions, Inc. You can find out more about Qnet at <http://www.qnet.com> or at 661-538-2028.

Chapter 1000 Calendar

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

Sep 4: EAA Chapter 49 Monthly Meeting, 7:30 p.m., General William J. Fox Field, Lancaster, CA. (661) 948-0646

Sep 6-8: Golden West Fly-In, Yuba County Airport (MYV), Marysville California.

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

Sep 12-15: Reno Air Races

Sep 14: Just An Old Fashioned Fly-In V, General William J. Fox Field, Lancaster, CA. (661) 948-0646

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

Sep 21: **Operation Rubidoux Sundown X**, Flabob International Airport. (661) 256-3806

Sep 21: Young Eagles Rally, 8:00 a.m. General William J. Fox Field, Lancaster, CA. (661) 822-0806

Oct 8: EAA Chapter 1000 Board of Directors Meeting, 5:00 p.m., High Cay, 4431 Knox Ave, Rosamond CA. (661) 609-0942

Oct 10-13: Copperstate Regional EAA Fly-In, Phoenix Regional Grand Valley Airport (A39), Phoenix AZ

Oct 15: EAA Chapter 1000 Monthly Meeting, 5:00 p.m., Edwards AFB. USAF Test Pilot School, Scobee Auditorium. (661) 609-0942

Oct 19: Young Eagles Rally, 9:00 a.m. Tehachapi Municipal Airport, Tehachapi, CA. (661) 822-0806

Oct 24-26: AOPA Expo 2002, Palm Springs CA

Oct 26: Edwards AFB Open House

To join Chapter 1000, send your name, address, EAA number, and \$20 dues to: EAA Chapter 1000, Doug Dodson, 4431 Knox Ave, Rosamond CA 93560-6428. Membership in National EAA (\$40, 1-800-843-3612) is required.

Contact our officers by e-mail:
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Inputs for the newsletter or any comments can be sent to Russ Erb, 661-256-3806, by e-mail to erbman@pobox.com

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

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ADDRESS CORRECTION REQUESTED

THIS MONTH'S HIGHLIGHTS:
OSHKOSH REPORT AT TPS 20 AUG
MYSTERY AIRCRAFT REVEALED!
BISHOP YOUNG EAGLES RALLY PIX



The Leader In Recreational Aviation