

Chapter Meeting: April 25, 2012

Speaker: Bill DeRouchey

DIY Glass Panel & ADS-B Concepts + Benefits



While working for Douglas Aircraft at the Long Beach airport in 1969 I fell in love with software programming and design. My skill set evolved into system design and implementation with a specific interest in telecommunication protocol design.

Owned my own business creating and selling packaged software during the 80's and worked as an engineering manager for Symbol Technologies wireless division during the 90's. I got caught in a 2002 layoff and consulted for a few years.

Everything changed after the 2002 layoff. Vans Aircraft was delivering kits with matched-hole technology that required no jigs and there were rumors of a 4-place kit. The tail kit #29 was delivered in September 2003.

I began visualizing the panel early 2005. My only firm decision was to never install a vacuum

system. Ever. After more thought, I realized that if you start with a solid-state gyro the end point is a glass panel. So I began a vendor search. I quickly adopted the Garmin 430, but for various reasons neither the Chelton, Dynon, Op-Tech nor Blue Mountain products impressed me. I simply wanted big displays. With my background in computer system design and software it looked like a fun challenge.

I built the airframe during the day and wrote software at night. Dave Morss signed off N939SB August 2006 and it flew that afternoon. On this first flight the prototype glass panel worked but was crude. The test phase showed many changes were necessary such as dampening rates, calibration, and invent a speed sensitive elevator trim.

It would soon seem that I built the RV-10 to carry my experimental panel through space since perfecting and improving the panel has evolved into my main hobby. During this 5 year evolution I have elevated my position from pilot to commander by providing computer support for every tactical calculation.

Just now N939SB has Basic IFR, WAAS IFR, Fuel Manager, Health Synopsis, ADS-B Weather, and ADS-B Traffic. Expanding my ADS-B traffic implementation I developed software to perform threat analysis that projects traffic forward in time to identify and depict those aircraft that need immediate attention. It becomes valuable in a busy traffic environment and I have submitted a patent which is now pending.

Dues Reminder:

It's already April, and there are still about 20 members that have not paid their dues. Paid members will soon have additional benefits. Please make sure your membership is paid.

President's Notes

by Bill Reining

We have made more progress on the meeting room issue! Let me review significant meetings with the airport management (Keith Freitas and Beth Lee, Bill Reining and Maureen Bell):

March 12 – Our challenge to find a more affordable meeting place was presented.

The airport responded with a pledge to identify candidates to solve our problem.

We stressed we needed kitchen facilities.

March 23 – The airport provided four options, including the Terminal Building, the old MDPA Clubhouse, the hangars south of the old MDPA clubhouse, and possible buildings between Sterling and PSA.

April 5 – We informed the airport that both organizations had discussed the options in detail and decided to accept restoration of the MDPA Clubhouse on a shared use basis.

The airport is now going to restore utility services to the building (gas, electricity and water) and repair items that might threaten safe entry and use of the building. They will do so in the next 30 days (from April 5). Only when the building's "infrastructure" is deemed safe will the airport allow us to access the building to begin cleaning, painting and preparing the building for use.

The airport will be able to spend money on the building since it will then be made available for use by any aviation-related club. There will be no charge for use of the building. The airport will control access to the building according to reservations made with the airport office.

Scott Achelis, a licensed contractor and member of both EAA 393 and MDPA, has volunteered to serve as our foreman during our efforts at restoration of the building. It is important, once we get the green light, that all of our time and money be accurately recorded. The reason is related to any exclusive use of part of the building. For example, if we (perhaps MDPA and EAA 393 together) decided we wanted exclusive use of the old office room (for example for food and utensil storage), the airport would

charge us rent, probably around \$100 a month. This rent could be reduced by as much as 50% by the time and money we spend to improve the building. The airport would have to approve our projects, but indicated there would be considerable latitude granted.

Several EAA 393 members took advantage of MDPA's invitation and joined their fly-out to lunch at the Watts-Woodland Country Club on April 7. Eric Schuldt won a credit for \$50 worth of avgas. Harvard Holmes won the demonstration flight in a Sea Ray amphibian light sport aircraft. All-in-all it was a fun day!

Lastly, Jack Davi and Renee Robinson are still looking for volunteers to support the April 28 Young Eagles rally. They particularly need Ramp Marshals – the people who wear red vests and escort the kids to and from the airplanes. Please let Jack or Renee know if you can help.

Young Eagles Events

By Renee Robinson

Our first Young Eagles rally of the year is almost here. Since the chapter will be putting up the sign on Concord Blvd. to attract even more attention, I need all the help I can get to make this run smoothly. Please sign-up as a volunteer!

The schedule I have worked out for this year is: April 28 (Girl Scouts), May 12, June 23, August 18, September 15, and October 20 (Sea Cadets)

Thanks, Renee Robinson

Donate your old laptop computer!

We can use a few additional laptop computers for the Young Eagles events. The only software required is a relatively recent web browser, so Windows, Mac, and even Linux is acceptable.

Young Eagles Software

By Kevin Hoos

The Young Eagles database software is getting updated. The new version will be on the training site soon: <http://training.eaa393.org>

Dinner Menu

By Rick Bourgeois

Dinner is served at 6:30pm – Donation is \$7:

- Roasted Chicken
- Mashed Potatoes
- Green Beans
- French Bread
- Green Salad
- Dessert
- Coffee and drinks (water & soda)

Let Rick know your suggestions for future meals.

April 4, 2012 Board Meeting Notes

by Pete Mitchell

President Bill Reining called the meeting to order at 19:10.

Board Members Present: Bill Reining, Pete Mitchell, Bob Belshe, Kevin Hoos, Renee Robinson, Jack Davi, Rich Bourgeois, Tom Howard.

Absent: Tracy Peters, Vi Egli, and Bob Sinclair.
Members at large: Harvard Holmes, Dick Sperling, Guy Jones, Scott Achelis and Maureen Bell (MDPA)

Treasurers Report – Bob Belshe

The revised 501 c3 was mailed Friday March 30. Bob will be sending a check for \$300 to MDPA for the second quarter rent.

Young Eagles – Renee Robinson & Jack Davi

YE supplies have been ordered from National for the April 28 date. The YE Banner is missing in action. Tracy will update it with the Rally Date & eligible ages. Jack is worried about times pilots will be available. We have 10 four-seat aircraft. The Tower, PSA, the County and Sterling need to be notified. The VariEze will not be ready. Rich Bourgeois will have hot dogs, lemonade & chips available for \$1 each. YE's fly & eat free.

Clubhouse – Bill Reining and Maureen Bell

MDPA, along with EAA 393, has voted to proceed with renovation of the old MDPA

clubhouse. Bill and Maureen will meet with the airport to inform them of these decisions. [The meeting was held the next day. We were told that before either organization can begin work, the airport wants to ensure the basic building "infrastructure" is safe. They estimate this will take about 30 days. The County will restore utilities, check that basic water, electric and gas circuits are functioning, and repair the broken windows. At this point the roof appears to be OK, and the sewer probably needs repair. Once the clubs are allowed access, volunteers will be needed for cleanup, painting etc.]

Dinner Menu – Rick Bourgeois

Roasted Chicken, Mashed Potatoes, Green Beans, French Bread, Green Salad, Dessert. Soda, Water & Coffee.

Speakers – Jack Davi

April Speaker: Bill DeRouchey – Electronic Flight Instruments and ADS-B.

May Speaker: Allan Brown – design of the F117.

Chapter Photographer – Tom Howard

Tom will be uploading more photos to the website.

Tools – Tom Howard

Tom has purchased a Snap-On BK 6000 Borescope, and is awaiting UPS delivery. Checkout and deposit procedures will be formulated.

Air Academy – Kevin Hoos

Kevin will design a poster to advertise the Young Eagles Air Academy position.

Golden West Homebuilt Competition June 10th

Tracy was nominated as the point of contact.

Web Site – Renee Robinson

The updated by-laws have been posted to the website: www.eaa393.org. Articles 7 and 17 were amended to agree with the recent changes in our Articles of Incorporation.

Meeting adjourned at 21:00

March 28, 2012 General Meeting Notes

by Pete Mitchell

Twenty members enjoyed Rick's dinner of Baked Ziti, Kernel Corn, Garlic Bread, Green salad, Chocolate Chip Cookies and Ice Cream. Twenty-four attended the General Meeting, including guest John Ambler.

The State of California has requested some minor changes to our Articles of Incorporation and By-laws. These changes had been approved at the last Board Meeting, and were unanimously approved by the membership during the General Meeting.

As the prospect of use of the old MDPA building continues, Tom Howard motioned and Jack Davi seconded, that 393 & MDPA pursue refurbishing the old clubhouse. The membership vote was unanimous.

Renee & Kevin have set up a website for anyone interested in how to use our Young Eagles software.

Please visit: <http://training.eaa393.org>

The data on that site is just for training. Please don't put actual personal data in there as the site is not protected.

The meeting was adjourned for a West Side Hanger tour of:

- Peter Degl'Innocenti's P-40 Replica
- Ernst Freitag's RV-10
- Bob Belshe's Arion Lightning
- Harvard Holmes Lancair IV and his project Lancair IVP

Wednesday Fly-outs - Photos

By Tom Howard



Wednesday Fly-outs - Information

By Harvard Holmes

To maintain our proficiency, a number of pilots get together on Wednesdays and fly somewhere for lunch. Many of the aircraft owners in the chapter participate. Passengers are always welcome. Not only is it a great way to see the Bay Area, it's also fun to see and ride in our members' aircraft. The email address is WedFlyOut@eaa393.org. You may contact Renee Robinson webmaster@eaa393.org to be added to or removed from this list.

Generally, someone who wants to go flying will send a suggestion to this list a day or two before. Those who can go will respond, and a destination gets selected. Recent destinations have included: Half Moon Bay, Petaluma, Santa Rosa, Ukiah, Boonville, Shelter Cove, Willows, Auburn, Sacramento, Lodi, Stockton, Merced, Watsonville and Salinas. If the weather is poor, a destination may be selected as late as Wednesday morning.

The most active pilots on this list are Harvard Holmes, Bill Reining, Bob Belshe, Ron Robinson, and Phil Jenkins. Pilots sometimes advertise that they have empty seats, but not always. Harvard Holmes and Bill Reining are most likely to have extra seats (4 seat aircraft). My advice is to contact a pilot in advance to make sure they have room and to get directions. Typically, you'd get to the airport by 11:30am and return by 3:30pm.

FOR SALE: 1962 Comanche 250,

Cherry condition, fully loaded, new paint, new annual, always hangared. Call Keith Martz for details and avionics. Available for viewing any day, by appointment, at Buchanan Field. Call Keith Martz, 925-933-1424 (Home) or 925-818-7235 (Cell).

Thanks to our Donors and Sponsors



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Chapter 393 of Concord, CA

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Meeting and Event Schedule

Board	Y Eagles	General	Fly-out	Other
Apr 4	Apr 28*	Apr 25		
May 2	May 12	May 23		May 19 <i>National Learn to Fly Day</i>
Jun 6	Jun 23	Jun 27		Jun 8-10 <i>Golden West Regional Fly-In</i>
Jul 11				Jul 11-15 <i>Arlington Fly-In, Arlington, WA</i>
Aug 1	Aug 18	Aug 22		Jul 21 <i>Chapter Picnic</i>
Sep 5	Sep 15	Sep 26		<i>AirVenture 2012, Oshkosh, WI</i> Jul 23-29
Oct 3	Oct 20*	Oct 24		

(* Events for Girl Scouts & Sea Cadets)

Our meetings are open to the public. Join us for dinner at 6:30 pm (\$7 donation) with the general meeting at 7:30 pm on the above dates in the building at 161 John Glenn Drive north of Sterling Aviation. Enter from the airport side of the building.

Chapter 393 fly-outs are open to chapter members and guests. See the newsletter for arrangements.

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We are on the Web!
<http://www.eaa393.org>
Email: nle@eaa393.org

