

EAA Mount Rainier Chapter 326 Newsletter

Thun Field – July 2009

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Meeting Notice

**Tuesday, July 14th, 7 PM
CAP Building, Thun Field**

Program: Canard Aircraft. Bruce Hughes

Refreshments: Kevin Behrent

From the Secretary

June 9, 2009 – EAA Chapter 326 monthly meeting. Tonight's program was by Maxwell Engines. Kevin Behrent called the meeting to order. Sandy & Pat brought the refreshments. Visitors: Mike Elliot from Olympia building a RV8A James Fields – retired from Navy

Next Board of Directors meeting for the chapter TBD later this summer.

Young Eagles is coming fast on the 27th of June. As of now there are 96 registrants via the web self registration system.

Harry has provided his Cessna 152 as our static display aircraft.

EAA National asked that we not take donations as part of Young Eagles.

Dave asked that we think of naming this as an Annual Event.

Sporty's pilot shop has a new Young Eagles benefit of a DVD ground school training course, recommended age 13 or older.

Insurance – umbrella coverage of \$1M both for rally events or individual flights whenever.

Event starts at 8:30am on the 27th to finish setup and get ready.

Arlington Airshow is July 8th – 12th. The chapter cookout will be Saturday the 11th at the group campsite. Bring potluck items to share with the group. Please stop by if you fly in for the day or are camping for the week!

Kevin gave a show and tell of a new Dymo labeler that writes on heat shrink tube. He is using it for his wiring of the plane. This allows easy marking of wires at each end to know what's what around the plane.

Andy Karmy, EAA Chapter 326 Secretary

Young Eagles Recap 221 kids

Bravo Dave Fritzsche! Well done Chapter 326! Thank you Spencer's. Our most significant event of the year was completed safely with 221 kids flown. We had 24 airplanes, 8 from outside our chapter. Good weather, clear skies, a little bumpy.



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|-----------------------------------|--------------|
| 1. Lynol Amero | Ercoupe |
| 2. David Atkins | RV-6 |
| 3. Kevin Behrent | Mooney |
| 4. John Brick | RV-4 |
| 5. Tom Brown | Cessna 182 |
| 6. Doug Clough | Cessna 195B |
| 7. Bruce Finney | Thorp T-18 |
| 8. Jason Hills | KIS TR-1c |
| 9. Gordy Klawitter | PA-28 |
| 10/11. Kristina Lang / Al Swierzy | Diamond DH40 |

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|---------------------|---------------|
| 12. Mike Michalak | Grumman AA1B |
| 13. Harry Nelson | Harmon Rocket |
| 14. Jack Ondracek | PA-28 |
| 15. Jim Piavis | RV-7 |
| 16. Marv Scott | Cessna 182 |
| 17. Harold Smith | RV-6 |
| 18. Dave Vermeersch | RV-9A |
| 19. Mike Salmon | Cessna 172 |
| 20. Scott Cutler | RV-6A |
| 21. Dave Babcock | RV-4 |
| 22. Robert Barra | RV-8A |
| 23. Todd Cameron | RV-7A |
| 24. Will Hall | Cessna 172 |
| 25. Paul Yarbrough | RV-9A |

Mike Michalak flew 11 kids, one at a time, in his Grumman American Yankee. Is that some kind of record? Way to go Mike!

I'm jealous of those kids who got to fly in the C-195, the Ercoupe, the Rocket, the American Yankee, the Mooney, the Diamond, the KIS... I've yet to ride in any of those. Whatever happened to "old eagles day?"

Arlington

Our traditional Arlington Pot Luck gathering will be after the airshow on Saturday afternoon, July 11th. All Chapter members are invited. Bring friends and family! We'll provide burgers, brats, and soft drinks... you bring the good stuff. Chairs too if you have any with you. Our camping location is the usual place, second row behind where the airshow planes park, campsite WB7.

If you fly in, get the Notams here:

<http://www.arlingtonflyin.org/Flying/notam/Notam2009.pdf>

Flying Signaleers

The Flying Signaleers is a non-profit airplane partnership located in Puyallup Washington at the Pierce County airport. The partnership began in 1956 when several signaleers from the National Guard stationed at Fort Lewis bought a 1946 Aeronca Champ (N2677E), which is still owned by a local flyer. The aircraft was purchased before any of them knew how to fly. They immediately began their training at Thun Field (now KPLU) under the tutelage of "Slim" Lawson. The group incorporated as the Flying Signaleers in 1958. As a partnership that began in 1956, this is perhaps one of the oldest flight partnerships in the US.

We currently have a Cessna 172K and a 182P. Both aircraft are great performers since we've upgraded to 180hp in the 172 and a 280hp in the 182. That allows the 172 to be a true 4 seater and the 182 has the speed and power to "really go" places. The planes are hangared at the Pierce County Airport (KPLU). The hangar is a duplex style with doors on both sides.

We still have shares for sale and are looking for additional partners. Since this is first and foremost a social flying partnership, each person wanting to be a member has to "fit" well with the existing members and will need to be interviewed by the board.

Once you have made it through the selection process you can then buy a share which are currently \$ 500 for a restricted share if you just want to fly a 172 and \$ 700 or for an unrestricted share giving you access to all planes. With the membership as it stands the monthly dues are \$ 140 per share and cover the fixed costs like hanger, insurance, and annuals.

In addition to the monthly dues, there is an hourly "wet" rate charge for each plane. This is the aircraft rental with fuel.

The 172 rate is currently \$ 90 / hour tach time and \$112 / hour tach time for the 182. Most FBO rentals and some clubs use the hobbs meter for hourly charges. Hobbs charges tend to be 10 to 20 percent more in cost for actual time in the aircraft. We are a non-profit organization and all excess funds collected are put back into the airplanes or returned to the membership. Unlike some clubs, we own the planes, we do not rent planes that are owned by others.

Tom Brown of EAA Chapter 326 is a member.

<http://www.flyingsignaleers.com/>

Mode A AND Mode C

The Straight Scoop on How It Works

by

Darryl Phillips

If the transponder receives a Mode A interrogation, it transmits the squawk code, as set by the pilot. If it receives a Mode C interrogation, it transmits the altitude code, as supplied by the encoder. It's important to understand that AT NO TIME does the transponder send both. It's one or the other, if the ground station sends a Mode A interrogation, the transponder replies with a string of pulses that are the squawk code only. If a Mode C interrogation, the reply is altitude only.

These pulses are transmitted on 1030 Mhz. All interrogators use the same frequency. The output of the transponder is on the frequency of 1090 Mhz.

There is no difference between a Mode A and Mode C reply. If a Mode A interrogation is issued, a Mode A reply is expected, and the pulses will be decoded that way. Likewise, if a Mode C request is made, the data received from the aircraft will be calculated as altitude. This works well with only one ground station, but with several stations interrogating the same aircraft, mistakes can and do occur.

The Mode C data is pressure altitude, i.e., set to 29.92". This is equally true whether you are using a blind encoder, or an encoding altimeter. (If it weren't so, the controller would have to know what type of encoder you are using.) Usually there will be a substantial difference between pressure altitude and the reading shown on the altimeter. Often hundreds of feet. (Hint: Turn your barometric adjust knob on your altimeter from one end to the other, and see how much difference it makes in the altitude reading. On most altimeters, it's about 2700 ft.)

The ground equipment automatically adds the necessary barometric correction, according to the local pressure. The controller sees the same reading on his scope that the pilot sees on the altimeter, if both are using the same barometric setting. It is possible, indeed likely, that another ATC facility is indicating this aircraft at a different altitude, since the barometric pressure varies from one location to another.

Each altitude code has an equivalent squawk code. [For example, 4120 is the code for 3000 feet.] The list of altitude codes shows how that same data would decode as a squawk rather than altitude. But each squawk code does not necessarily have an equivalent altitude. There are 4096 squawk codes but only 1280 altitude codes, one for each 100 foot increment from -1200 to 126,700 ft. [To see the full list of codes go to the link at the end of this article.]

Why do the altitudes go all the way down to a negative 1200 ft? It's the barometric thing again. If you are physically located at sea level on a day with pressure above 29.92, your encoder will be putting out an altitude (pressure altitude) below zero. To accommodate the possible high pressures, the range goes down to -1200.

Altitude encoders switch from one code to the next nominally at the 50 foot point. Thus the code should indicate 1000 ft. at any height from 950 to 1050 ft., pressure altitude. But don't depend on it, the specifications are somewhat loose.

In the real world, when does the encoder switch? This is a question of practical importance to the pilot, because it can make the difference between a violation or not. The answer isn't simple. Encoders switch when they feel like it. If the encoder was perfect (none are) and temperature and humidity and gravity and barometric pressure were standard (they never are) and there were no vibration or static system error (and if you believe in Santa Clause and the Easter Bunny), then the encoder will switch as stated above, at the 50 ft point. But consider just one variable, barometric pressure. If it was 29.93, just one one-hundredth of an inch above standard, the encoder would switch at the 40 ft point (1040, 1140, 1240 etc). At 29.96, the encoder would switch near the 10 ft point, and at 29.97 reported altitude would switch at the assigned altitude.

So you can see that if you are assigned 6000 ft, for example, your encoder would be jumping up and down between 5900 and 6000, while you are cruising steady at your assigned altitude. This is one reason why it's important to have a readout, so you can see what your equipment is reporting to ATC.

The foregoing is an abridged version. The full article is at <http://www.airsport-corp.com/modec.htm>

Van's Paint Brands and Colors

Powder Coated Parts: Cardinal brand, color GR-230. It can be bought in a touch-up container (which we sell) Part Number = PAINT, TOUCHUP PGRAY

RV-6A N666RV aka "Ole Blue": Painted using PPG Durethane. The color is DU2230 Grabber Blue.

RV-7 N137RV: Painted using a Valspar base coat/clear coat system. Colors are W-51 Spec White and 1018 Mack Truck Dynamite Yellow. The blue and black trim and black N numbers are thin vinyl applique we had made at a local sign shop.

RV-8A N58VA: Painted using PPG Durethane DU81746 Taxi Chrome Yellow. **RV-8 N58RV**: Left in natural, but un-polished aluminum. Cowl, wingtips and fairings painted in our shop using Valspar Sunthane 2K polyurethane. Color is Silver metallic 852 and 074M.

RV-9 N179RV: Painted using Valspar Solar System Sunthane 2K polyurethane. Colors are W-51 Spec White and 1018 Mack Truck Dynamite Yellow. The blue and black trim and N-numbers are vinyl.

RV-9A N129RV: Painted in our shop, using PPG Durethane. Colors are Delta 3500 DUHS 14711 Navy Blue and DUHS 82526 SC Yellow. The tomato red/blue stripes and black numbers are vinyl.

RV-10 N410RV: Painted using Valspar Solar System Sunthane 2K polyurethane. Yellow 852Y1018L and White 852W51.

RV-10 N220RV: Valspar Solar System Hunter Green 333G2162 Base/Clear Coat and White 852W51.

RV-7 N477RV Transition Trainer: Painted using Valspar Solar System Sunthane 2K polyurethane. Bright Red 852R319 and Vans White 852.

The gray interior of several of our airplanes is Valspar Solar System Sunthane 2K polyurethane. The color is 852NO66 Interior Gray.

Our paint representative is:
Tracy Dutcher 800-845-2500 valsparrep@aol.com

Jul 8-12 Arlington, Northwest EAA Fly-In [AWO]
Jul 18 Forks 19th Annual Fly-In, Salmon Bake and Car Show [S-18]
Jul 18 Heritage Flight Museum—Noon-4p
www.heritageflight.org
Jul 18 Sandpoint, ID: Fly-In
Jul 25 Concrete Fly-In [3W5]
Jul 27-Aug 2—Oshkosh—EAA Air Venture,
Aug 1 Portland-Troutdale (TTD). Wheels & Wings
Aug 1 – 2 Seattle, WA: Blue Angels
Aug 7 – 9 2nd Annual Prosser Fly-IN
Aug 7 – 9 Abbotsford, BC—Airshow [CYXX]
Aug 9 Chapter 326 Burger Burn. Thun Field [KPLU]
Aug 14 –16 50th Annual NW Antique Airplane Fly-In, Vancouver, [VUO]
Aug 22 Wings over Republic [R49]
Aug 28 – 29 Van's Homecoming, Independence State [7S9]
Sep 4 -5 McMinnville Aircraft Fly-In [MMV]
Sep 12 WAAAM Fly-In Hood River Ken Jernstedt Airfield [4s2]

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Chapter 326 Website <http://www.eaa326.org>

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