

# EAA Mount Rainier Chapter 326 Newsletter

Thun Field – May 2008

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## Meeting Notice

**Tuesday, May 13th, 7 PM  
CAP Building, Thun Field**

**Program: Sparrowhawk Autogyro. Randy Coplen**

**Refreshments: Rick Glatthaar**

## From the Secretary

EAA Chapter 326 meeting – April 8<sup>th</sup>, 2008

Jeff called the meeting to order for the evening. Tonight's program is by Aircraft Magneto Services – Clifton Orcut.

Visitors:

Harold Irvine – Interested in the RV12

Andy Hinchburger – Working on a Kitfox project with 0-200 engine

Young Eagles – The new date is going to be June 28<sup>th</sup>, 2008. We need more signups for help during the event. There are many jobs that need your help. We need more pilots to sign up to fly the kids. Remember the target is near 300 kids, which takes many seats to cover. We will have advertising and signage setup this year, and we hope for good weather with the date being pushed back a few weeks.

Treasurer's report - \$5209.74 in the bank. 98 paid members, 16 more to go!

Jeff completed his first flight on his RV8 this last month!

Project reports: Jeff Bloomquist is working on mounting his wings on his RV7. Randy is working on a Cessna 120 rebuild and his RV8 fuselage. Kevin got his engine last week and is finishing up the fuselage on his RV9A, Canopy and Avionics are next. Gary McDonald is just about complete with his RV4, just paperwork to go. Randy Brooks, is waiting on fuselage & wing delivery from Vans on his RV9A. Mark Owens is working on his Glasair II, finished up his tail parts.

----- Evening Program -----

Aircraft Magnetos – Clifton learned to fly in a J3 with John Thun for \$5 per hour. He attended clover park, and got his A&P in 65. Started work at Wesco Accessory service (overhauling radial accessory parts). In 76 Clifton and his brother Russ started a service company Orcut services. His brother left for Alaska Airlines after a few years, then after selling the business, Clifton started Aircraft Magneto services in 2003.

They have full service for mags with all the tools, to check, inspect, repair, and rebuild any and all. Aero, American Bosch, Case, Dixy, Edison, Eisman, GE, IH, Rotax, North East, Teledyne, Unison, Vertex, Wyco. All produced mags over the years.

Current Slick 4200, 4300 are much improved, with reduced parts counts. They are designed to wear out in unison. The parts are too expensive to overhaul, so outside of specific parts failures, the best plan is to replace them when they are worn.

Bendix on the other hand are easily field rebuildable. They have both impulse coupled and shower of sparks models. Bendix continues to support most all of their line of products.

Both Bendix and Slick have 500 hour inspections required. 2 hours for Slicks and 3 hours for Bendix. Most AD's are for impulse coupling problems. Slick mags almost never fail the condensers, but do have coil failures on a more regular basis. Bendix mags almost never fail coils, but do have condenser failures of around 10%.

Mags in general, give a warning of impending doom, by fouled plugs, starting problems, etc. They generally don't hard fail in a catastrophic mode.

The best mag is the Bendix S1200 shower of sparks for most power, and longevity. Clifton works on about 70% Bendix vs 30% Slick.

Mag troubleshooting: With large RPM drop on mag check, usually a plug problem or a lead. Champion has had a long standing problem with the resistor plugs. You can check the plugs by putting an ohmmeter across the plug. You should get 800-1200 ohms. If you get 5000 or above you have a bad plug. Unison plugs are bonded to the resistor and don't have the issue.

Typically the mags should last the full 2000 hours by doing the 500 hour inspections and basic tuning / maintenance. The harness should run the same full length to TBO of your engine.

Finewire plugs stay hotter and should last the length of the engine. They work great on the lower plugs especially if the engine is burning oil. They are very expensive which is the only downside.

Electronic ignition vs mags: one of the key issues is the failure mode. Electronics have a tendency to fail hard without warning, where mags more gracefully degrade over time.

Slick mag service (500 hours) is \$200 + parts. Turn around time is 4 days

## RV-12

From SUN 'n FUN flyer

The RV-12 is Van's newest design and meets the standards of the new Light Sport Category. It's a two-seat all-metal side-by-side airplane with a large cabin that seats the occupants ahead of the wing spar for maximum room and superb visibility. It is powered by a Rotax 912ULS 100 hp engine turning a Sensenich composite

propeller. The wings are quickly and easily removable, making the RV-12 easy to transport on a trailer and keep off-airport. The low empty weight allows a generous useful load — two 215 lb people, 20 gallons of fuel and 30 lbs of baggage.

The best news is that it flies like an RV! The RV-12 has all the performance the Light Sport Category permits as well as excellent handling qualities at all speeds. It is very docile on take-off and landing and pleasantly quick and agile in the air. Frankly, we are very pleased. We love flying the RV-12!

#### **WHEN WILL IT BE READY?**

After many, many hours of design, development and testing, we're happy to say it's ready now! We are accepting orders for RV-12 wing kits [\$5480]. Order forms are available from Van's office or on [vansaircraft.com](http://vansaircraft.com). Just click on "order forms" in the vertical bar.

#### **WHAT'S THE KIT LIKE?**

The RV-12 is the culmination of thirty-five years experience manufacturing the best aircraft kits available. The result is an exceptionally complete kit with parts that fit very, very well. All metal parts are completely formed and pre-punched with fastener holes. All hardware is included. Every detail of the engine installation, instrument panel, fuel system, landing gear and airframe is carefully designed and optimized for performance and building ease. No special tools are required — forget the jokes, it really *does* assemble with simple hand tools. The instructions and building directions (patterned on the very successful package used for RV-10) are composed of beautifully clear computer-generated drawings with step-by-step instructions.

The RV-12 is sold in five separate subkits. These are:

- **EMPENNAGE/TAILCONE KIT:** contains all components for empennage surfaces and the fuselage aft of the rear baggage bulkhead.
- **WING KIT:** contains all components for wing and flaperons.
- **FUSELAGE KIT:** contains all components for fuselage between firewall and rear baggage bulkhead, including wiring harness and fuel tank components.
- **FINISH KIT:** contains cowling, engine mount, canopy, wheels/brakes and nose gear components.
- **ENGINE/PROPELLER/INSTRUMENT PACKAGE:** contains Rotax 912ULS engine and engine installation kit, Sensenich fixed-pitch propeller, Dynon 180, Garmin SportPac, switches, fuses, etc.

#### **HOW LONG WILL IT TAKE TO BUILD?**

We are conservatively estimating that the average builder will spend about 600-900 hours to complete an un-painted RV-12.

#### **HOW CAN AN RV-12 BE LICENSED?**

In February 2008, the FAA instituted a moratorium on reviewing new kits for compliance with Experimental-Amateur Built category. This has left Van's Aircraft only one option; to pursue licensing in the Experimental Light Sport Aircraft (E-LSA) category. We are submitting the RV-12 prototype for Special Light Sport Aircraft (S-SLA) approval and expect to have it soon. When this is received, RV-12 builders may build and license conforming airplanes in the E-LSA category. Although the E-LSA category does not permit builders to vary from the kit or plans (no unapproved engines, propellers, etc. are allowed) it does have some very attractive features. In the E-LSA category, there is no "51%" rule, and no restriction on who may assist in building the airplane. This allows any amount of help, professional assistance or even a fully professional-built airplane. Van's Aircraft, Inc. is unable to predict the ultimate effect of the moratorium on the E-AB eligibility of RV-12 kits. From the information currently available, E-AB certification will **still be allowed** on an **individual basis**, but the burden of proof of meeting the 51% rule will be entirely the responsibility of the builder. Because the RV-12 kit has no pre-assembled parts, E-AB licensing should be almost certain.

#### **CAN ACCESSORIES LIKE LIGHTS, AUTOPILOTS OR WHEEL FAIRINGS BE INSTALLED?**

If the builder chooses to pursue the E-AB certification, certainly. In the E-LSA category, however, builder-constructed airplanes must match the S-LSA prototype exactly. Although the RV-12 was designed with these accessories in mind, the initial prototype does not have them installed. We hope they will be available to E-LSA RV-12 builders in the future, but at this point we are not sure how long that might take.

#### **WILL THERE BE A QUICKBUILD KIT or a FLYAWAY RV-12?**

There can be no QuickBuild Kits until the E-LSA kit is completely available. At that point we will review the economics of the QuickBuild Kit, the regulatory situation and our production capacity before reaching a decision. The E-LSA category permits kits to be pre-assembled far past the point of current RV QuickBuild Kits — an interesting possibility! Flyaway S-LSA RV-12s are a more distant possibility.

#### **HOW MUCH WILL AN RV-12 COST?**

We won't be able to give an exact figure until all the subkits are available. Our best estimate is that an E-LSA could be completed and flown for about \$50,000-\$55,000. Fancy paint and upholstery jobs could increase the cost significantly.

### **The Flying Heritage Collection**

One of the world's greatest collections of rare World War II-era military aircraft from the five major countries of the war, will open on June 6, in a newly restored facility at Paine Field in Everett, Washington. The Flying Heritage Collection features legendary planes like the Supermarine Spitfire, Messerschmitt BF 109, Mitsubishi Zero-Sen, and

the North American P-51D Mustang. The Collection's Fieseler Fi-103 V-1 "Buzz Bomb" was the world's first 'cruise missile' and was also developed by Germany late in World War II. The collection also features a North American Hellcat, one of five Hellcats left in the world. For more information visit [flyingheritage.com](http://flyingheritage.com)

### Antoine de Saint-Exupéry

French aviator and writer, real life hero who looked at adventure and danger with a poet's eyes. He writes about flying, the experience of being in the sky, the mission, with barely any reference to the airplane. Not the model, type, engines, horsepower, crew...almost nothing. I had to buy his biography written by another author in hopes of getting those details.

Antoine de Saint-Exupéry was born in Lyons, France into an old family of provincial nobility; one of his ancestors had fought with the Americans at Yorktown. In 1921 he started his military service in the 2ND Regiment of Chasseurs, and was sent to Strasbourg for training as a pilot. He had flown, with a pilot, for the first time in 1912. On July 9, 1921, he made his first flight alone in a Sopwith F-CTEE. Next year Saint-Exupéry obtained his pilot's license and was offered a transfer to the air force. However, when his fiancée's family objected, he settled in Paris where he took an office job and started to write. The following years were unlucky. His engagement with Louise de Vilmorin broke off, and he had no success in his work and business.

His true calling Saint-Exupéry found in flying the mail for the commercial airline company Aéropostale. He flew the mail over North Africa for three years, escaping death several times. In 1928 he became the director of the remote Cape Juby airfield in Rio de Oro, Sahara. His house was a wooden shack and he slept on a thin straw mattress. "I have never loved my house more than when I lived in the desert," he recalled.

In this isolation Saint-Exupéry learned to love the desert, and used its harsh beauty as the background for *The Little Prince* and *The Wisdom of the Sands* (1948). During these years Saint-Exupéry wrote his first novel, *Southern Mail* (1929), which celebrated the courage of the early pilots, flying at the limits of safety, to speed up the mail and win a commercial advantage over rail and steamship rivals. Another story line in the work depicted the author's failed love affair with the novelist Louise de Vilmorin.

In 1929 Saint-Exupéry moved to South America, where he was appointed director of the Aeroposta Argentina Company. Saint-Exupéry flew post through the Andes. This experience gave the basis for his second novel, *Night Flight*, which became an international bestseller, won the Prix Femina, and was adapted for screen in 1933, starring Clark Gable and Lionel Barrymore. In the story Rivière, the hard-bitten airport chief, has left behind all thoughts of retirement and sees the work of flying the mail as his fate. "We don't ask to be eternal", he thought. "What we ask is not to see acts and objects abruptly lose their meaning. The void surrounding us then suddenly yawns on every side." (from *Night Flight*)

After the airmail business in Argentina was closed down, Saint-Exupéry started to fly post between Casablanca and Port-Étienne and then he served as a test pilot for Air France and other airline companies. He wrote for *Paris-Soir* and covered the May Day events in Moscow in 1936, and wrote a series of articles on the Spanish Civil War. Saint-Exupéry lived a traveling, adventurous life: he persuaded Air-France to let him fly a Caudron Simoun (F-ANRY), and had an aviation accident in 1935 in North Africa. He walked in the desert for days before being saved by a caravan. In 1937, he bought another Caudron Simoun, and was severely injured in Guatemala in a plane crash. During his convalescence he wrote *Wind, Sand and Stars*, which won the French Academy's 1939 Grand Prix du Roman and the National Book Award in the United States.

Saint-Exupéry was criticized by his countrymen for not supporting de Gaulle's Free France forces in London. *Flight to Arras* (1942), published in New York, depicts his hopeless flight over the enemy lines, when France was already beaten. The book was banned in France by the German authorities. In 1943 he rejoined the French air force in North Africa.

On July 31, 1944 Saint-Exupéry took off from an airstrip in Sardinia on a reconnaissance flight over southern France. His plane disappeared - he was shot down over the Mediterranean, or perhaps there was an accident, or it was suicide. Saint-Exupéry had felt isolated and alone his squadron, and was pessimistic about the future.

If you like a writing style full of soul searching analogies to flight, google up his books on Amazon. jb

### Calendar

**May 17-18 RV Assembly Workshop, \$319, Arlington**  
**June 7, Chelan Fly-In (S10)**  
**June 6-8, Golden West Fly-In and Airshow (MYV)**  
**June 28, Young Eagles Day – Thun Field**  
**June 14, RV Fly-In, Scappoose (SPB)**  
**June 14-15 Olympic Air Show, Warbirds (OLM)**  
**June 20-21, Richland Fly-In, (RLD)**  
**July 4, Tacoma Freedom Fair Air Show**  
**July 9-13, Arlington Fly-In and Sport Aviation Convention**  
**July 25-27, Concrete (3W5) Fly-In**  
**July 28–August 3, EAA AirVenture, Oshkosh (OSH)**  
**August 1-3, Orcas Island Fly-In / Campout (ORS)**  
**August 8-10, Prosser Fly-In (S40)**  
**August 8-10, Abbotsford, BC International Airshow (YXX)**  
**August 15-17, McMinnville Annual fly-In. (MMV)**  
**August 15-17, Van's Homecoming. Independence State (7S5)**  
**August 23, Lynden Airport Fly-In (38W)**  
**September 10-14, Reno Air Races (RNO)**  
**September 24, Pasco Airshow w Canadian Snowbirds (PSC)**  
**October 23-26, Copperstate Fly-In, Casa Grande, AZ (CGZ)**

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## Chapter 326 Staff

<b>President</b>	<b>Jeffrey Liebman</b>	<b>253-531-6123</b>	
<b>Vice President</b>	<b>Robert Barra</b>	<b>253-988-2676</b>	
<b>Secretary</b>	<b>Andy Karmy</b>	<b>253-333-6695</b>	
<b>Treasurer</b>	<b>Norman Pauk</b>	<b>253-630-6396</b>	
<b>Newsletter Editor</b>	<b>John Brick</b>	<b>253-846-2617</b>	<b>jebrick@comcast.net</b>
<b>Photographer</b>	<b>Drew Karmy</b>	<b>253-333-6695</b>	
<b>Webmaster</b>	<b>Andy Karmy</b>	<b>253-333-6695</b>	

<b>Young Eagles Coordinator</b>	<b>David Fritzsche</b>	<b>253-848-1699</b>
<b>Technical Counselor</b>	<b>Harold Smith</b>	<b>253-752-5480</b>
<b>Technical Counselor</b>	<b>Charlie Cotton</b>	<b>360-893-6719</b>
<b>Chapter Flight Advisor</b>	<b>Terry O'Brien</b>	<b>206-244-3619</b>
<b>Chapter Flight Advisor</b>	<b>Jim Triggs</b>	<b>360-438-1482</b>
<b>Chapter Flight Advisor</b>	<b>Marv Scott</b>	<b>253-691-5496</b>
<b>Program Coordinator</b>	<b>John Brick</b>	<b>253-846-2617</b>
<b>Biographer</b>	<b>Vacant</b>	
<b>Property Custodian</b>	<b>Vacant</b>	

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

**EAA Mount Rainier Chapter 326**  
**C/O John Brick**  
**8304 242<sup>nd</sup> St. E.**  
**Graham, WA 98338**