

EAA Mount Rainier Chapter 326 Newsletter

Thun Field - December 2004

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Christmas Party

Tuesday, December 14th, 6PM
Kevin Behrent's Hangar, Thun Field

No gift exchange.

Bring the family.

Separate area for kids to play and watch movies.

This being a pot luck and volunteer affair, there is no charge to attend. Kevin's hangar is #6, at the north end of the row of new blue hangars on the left of the entrance drive. Please

do not park along the taxiway in front of the hangars.

do not walk / drive on the new grass in front of the hangars.

Food: The Chapter will provide ham and turkey and soft drinks. To supplement the Christmas feast and festivities, please bring to the table: last name beginning with;

A-G bring a favorite dish (with food in it).

H-R bring a salad.

S-Z bring a dessert.

Decorating and set up will be Sunday afternoon (Dec 12th) 1PM.

Christmas Party will be held in hangar 6. It's the 2nd to the end on the left.

The party starts at 6 PM and the potluck list is in the newsletter.

DUES ARE DUE for 2005!

Visitors

- Bryan Hanson - Young Eagles
- Terry Allen - RV7A
- Maynard Anderson - looking at Sport pilot
- Scott Emery - RV8 & RV9

Acro & Spins

Here is my \$.02 worth. This is all "my opinion." I will share that I am an ATP, CFII, MEI, with type ratings in the B-25, PBV, DC-3 and additional authorized aircraft rating in the P-51, F-4U, & T-28 with an "all makes and models, single and multi-engine piston powered" endorsement.

The RV is a lousy aerobatic airplane that does great "gentle" acro. Let me explain, The RV is pretty unforgiving of botched maneuvers because the stall speed is so low, the redline is so high, and the airplane is so clean.

A "good" acro airplane will allow you to screw up nearly any maneuver and not break the airplane. That is absolutely not true of an RV!!! The thing between your legs in an RV is truly the "wing removal lever." An RV-8 at 1550# and 230 mph has 18 Gs available, twice the ultimate

Spin training should be a no go item for any kind of acro in any kind of airplane. You do not have to do the spin training in your RV, but if you are not willing to spin your RV, then your acro should be limited to loops and rolls at speeds with some margin in them. If you do hammerheads long enough, sooner or later you will end up in a spin. If you kick left rudder and outside aileron at, or nearly at, zero airspeed, these are perfect pro-spin inputs, and if the airplane is falling off front or back, you stick in some elevator to hold the vertical line, bingo, spin. Right side up, or upside down.

If you try to cheat and kick early, you will sooner or later do a snap on the up-line, with out enough speed to finish it and you'll flop over into a spin.

The only RV that I have spun is the -4 and it spins and recovers fine, pretty fast, but as noted by others, the airplane is not really happy doing it. The fuselage makes noises that I really dislike. I have a C/S prop (forward CG) and if I do not have the stick absolutely full aft it hooks up and unhooks and that gets kind of aggressive. I do not regularly spin it. I do not spin it for kicks, only occasionally for proficiency. For kicks I spin my T-crate; it spins pretty quick too, but without all the spooky noises.

From the Secretary

November 9th, 2004 - Chapter 326 meeting

Kevin started the meeting as usual - His last meeting as President!

Today's presentation - Mark Russell - showing his work on the X Prize

Marv provided the refreshments.

Thanks to all of the officers for their two years of service:

Marv, Kevin, Mark, Smitty, Charlie, Andy, John

New officers -2005-2006

- Gordy President
- Lance - Vice Pres
- Andy - Secretary
- Andy - Webmaster
- Paul - Treasurer
- Darren - Young Eagles
- Kim - Photographer
- Open - Equipment custodian

The T-6 spins pretty quick too, and is fun. It rattles shakes, but it is built like a tank and I have no worries about it coming apart.

Finally, everyone should regularly practice slow flight and stall recoveries. Stall awareness and spin avoidance will save many more lives than spin recovery. Except for acro, most places where you are likely to stall\spin are too close to the ground to recover from a spin, so if you don't plan to do acro, or flight instruct, I agree that spin training is optional. Spin training is good training and will make you a better pilot; it is a good way to learn how to "Fly the Airplane" when the world is seemingly going to hell around you. Go find an acro instructor with a Decathalon and explore the envelope.

None of this is stuff that I would recommend in an RV. I am just sharing this for the purpose of awareness of the trouble you can get into in a responsive little short wing airplane. Spins in a rag tube airplane with an enormous wing can be a non-event. We should not transfer that cavalier attitude about spins to very clean, very responsive airplanes.

Tailwinds,
Doug Rozendaal

I read of a competent pilot who after spinning the RV-3 and RV-4, was spooked enough by the spin characteristics of the RV-6 that he decided to let a professional test pilot complete the spin testing. To his credit, the pilot's ego didn't interfere with his common sense and survival instinct and prevent him from turning over the spin testing to another pilot...even though he was the designer of the RV-6.

Yep, Van Hissel has written that the spin characteristics of the RV-6 are, if memory serves me he used the word, "disconcerting" for a pilot not highly schooled in spins in short-winged airplanes. Apparently the plane winds up very quickly and the rotation is far quicker and the attitude of the plane much more nose-down than a pilot trained in C152 spins would expect.

Sam Buchanan
(Never spun my RV-6 in 606 hrs, and hope I never do!)

Spencer Aircraft History

Have you ever landed at Sea-Tac International Airport in Seattle? If you have, then you were visiting the birthplace of SPENCER AIRCRAFT.

In the late 1930's, Dean Spencer and George Wolff were looking for a location to build a small, affordable airstrip. They found two parcels of land which could be purchased on easy terms for the taxes owed. The 70 acres of logged off stump land lay on a plateau where the fog seemed to dissipate quicker than other possible Seattle sites. A 1700 foot long area was relatively flat and had good approaches from both ends. It seemed the ideal setting for an airport.

Stumps measuring up to 9 feet in diameter had to be blasted. Grading was done with ancient machinery. After many months, a rough strip was completed and named Bow Lake Airport. Dean made the first landing at Bow Lake in late 1940 in his Taylorcraft.

By December of 1941, one hangar was completed and George was midway into digging a well for his home. On December 7, 1941, news of the Japanese attack at Pearl Harbor came. The United States entry into the war stopped all private flying within 150 miles of the Pacific Coast. George and Dean went off to be military pilots.

During the war, the Port of Seattle decided it needed an airport to supplement Boeing Field. The site they chose was Bow Lake. Fortunately, Civil Aeronautics Administration recognized Bow Lake as an airport, allowing Dean and George to be paid a fair price for the airstrip they had to sell.

By the end of World War II, the 70 acre dirt strip first known as Bow Lake Airport had grown into a major airport of 1080 acres. The main concrete runway lay directly over the original air strip.

When the war ended, Dean and George formed SPENCER AIRCRAFT to go into the aircraft parts business. The company has grown steadily and branched off into a larger fluid-power company as its core business. In September, 2001, the aircraft division was purchased by REGIONAL AIR CENTER, LLC and is now once again focused solely on providing aircraft hardware and supplies.

And best of all, SPENCER AIRCRAFT is now at Thun Field.

E-MAG / P-MAG A New Electronic Ignition

Most of the information here is culled from the EMAG website
<http://www.emagair.com/>

This is a new entrant to the field. Until now we have had LASAR and FADEC for type certified aircraft (and experimental); and Lightspeed (Klaus Savier) and Electroair (Jeff Rose) for experimental only.

E-Mag is a next-generation electronic ignition, designed to serve as an upgrade or replacement for traditional aircraft engine magnetos. P-MAG is a self-powered version (internal brushless alternator), whereas E-MAG requires external electrical power. Otherwise they are basically the same and the term E-MAG is used in general.

E-Mag is selling now just for experimentals. They are working on FAA certification

E-MAG Ignition base price \$645.00

P-MAG Ignition Self-Powered version of the E-MAG. \$895.00

Comments from Brad Dement at Emag:

RPM and manifold pressure are both inputs for the calculation. Maximum advance on the M model (Manifold Pressure Model) is 39 degrees. Our target market is day-to-day fliers, not CAFE racers. We are not attempting to press the limits of performance, because we don't think most fliers want to operate their aircraft that close to the edge. The bottom line is that all electronic ignitions are much more alike than they are

different, at least in comparison to magnetos. The performance differences between them (if any) is not likely to be noticeable by most owners. On the other hand, differences such as ease of installation, built-in power backup, kickback protection, etc. is easily understood and appreciated by everyone. By joining the race to claim X% increase in power/economy/efficiency over the competition, would focus attention in the wrong direction.

Almost all orders to date have been for M models (manifold pressure), so we are dropping the non-manifold version to keep the selection and production line simpler. Engines equipped with constant speed props need to set the ignition to operate in the Advance Mode with MAP sensor. Engines with fixed pitch props can set the ignition to operate in that mode or they can operate in the Advance Mode without MAP sensor (a setup option determined by the owner). Any aircraft has the option of operating in MAG Mode, where timing duplicates that of a traditional magneto.

Brad Dement

What's so great about E-MAG?

Physical Form - E-MAG's most conspicuous features.

- **Unified Form** - All components (position sensor, electronics, and coil) have been consolidated in a single module that mounts cleanly in the existing mag port. Resembling a traditional magneto, it "looks like it belongs" on the engine.
- **Sealed Electronics** - Sealed electronics are impervious to water, dirt, and oil. As an all-digital system, it can hold tighter tolerances through periods of significant thermal cycling.
- **Harness Options** - Aircraft and automotive style harness are both available.

Safeguards - E-MAG's most important features. E-MAG was designed specifically for aircraft engines. These engines are different than their automotive counterparts, and require a highly specialized ignition. One that not only takes advantage of current ignition technology, but also includes the requisite engine-specific safeguards.

- **Self-Powered Model** - All electronic ignitions share one fundamental challenge. How to defend against the loss of electrical power in-flight. E-MAG addresses this issue with a self-powered model, the "**P-MAG**". The P-MAG's, primary power comes from a built-in brushless alternator. Forget about batteries or keeping a magneto for back-up. Now you can run dual electronic ignitions - clean.
- **Starter Motor Friendly** - Like the first rule in medicine - "Do No Harm". E-MAG includes a lockout feature that guarantees the ignition will not fire before TDC during start-up. Were this to occur, an expensive starter motor can be damaged or destroyed. - See Sky-Tec's kick-back [warranty extension](#) (exclusive to E-MAG).
- **Voltage Reserve** - Bus voltage can dip sharply when aircraft starter motors are first engaged. Cold engines, low battery charge, and long battery cable runs all compound the problem. The E-MAG is designed to

endure significant voltage dips without disruption. Even short-duration total voltage blackouts can be overcome.

The E-MAG should take about two to three hours to install.

- The only thing that comes off your engine is the old mag and harness. You will not be asked to install satellite electronics cases, coils, or pick-up sensors to the engine - just the E-MAG and harness.
- A built-in TDC tone generator makes timing set-up a snap.
- During setup, timing can be indexed on the exhaust stroke or compression stroke. No more finding compression on #1.
- Customizable Timing Modes
 - Mag Mode - Replicates standard 25 degree magneto timing for installations where the E-MAG is operating in tandem with a traditional mag.
 - Variable Mode - Will vary timing over a wide range of conditions.

More good info in the FAQ section of their website.

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

Do You Want to Win a KitFox?

EAA Chapter 517, Inc. in Missoula, Montana is conducting a sweepstakes with a KitFox Model V which was completed in 1997 as the Grand Prize. Built by a retired airline captain, this beautifully completed aircraft is powered by a Teledyne Continental IO-240 engine. This beautiful airplane, painted in a patriotic red, white, and blue scheme, has approximately 110 hours total time and is a 9+ inside and out. Pictures and full details about this airplane are available on the EAA Chapter 517, Inc. website: www.eaa517.org. In addition to the Grand Prize KitFox, 1st prize will be a Garmin GPS, and 2nd prize will be a Lightspeed ANR headset.

This sweepstakes is unique because Chapter 517 will only offer a maximum of only 4,000 tickets. The odds of winning will be based on how many ticket are actually issued. The Chapter hopes to receive donations for a minimum of 3,000 tickets to see an appropriate return on the generous donation made by one of our Chapter members. A donation of \$25.00 is requested for each ticket. The drawing for this sweepstakes will be held on March 5, 2005.

Entry forms and rules are available on the EAA Chapter 517, Inc. website at: www.eaa517.org. Rules and entry forms may also be obtained by calling 406 542-5177, mail request at P.O. Box 16446, Missoula, MT 59808, or by e-mail at: EAAChapter517@aol.com.

End

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

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