

EAA Mount Rainier Chapter 326 Newsletter

Thun Field - May 2006

89

Meeting Notice

**Tuesday, May 9th, 7 PM
CAP Building, Thun Field**

Program: Alan Jesmer: He works sales and product support at Precision Airmotive. He will be talking about the Silver Hawk EX fuel injection system plus the new Eagle EMS (Engine Management System) in development.

Refreshments: Curt Bryan and Alan Reiter

Young Eagles Day

This will be our last meeting before YE day, **June 10th**. We need to finalize the work assignments. We need pilots especially. We will be operating out of Spencer's hangar again.

Friday, June 9th Set-up

Saturday, June 10th, Show up time is 8am, first flight at 9am.

Darrin

From the Secretary

Chapter 326 monthly meeting – April 11th 2006

Gordy called the meeting to order this month.

The presentation was by Col. Bob DeFee a F-4, O-2, FB-111 pilot in the USAF.

Treasurer report from Norman: \$1218.59 checking \$2175.95 Savings.

Joe Andre is selling the chapter shirts, hats, decals, etc. If you missed the meeting, please contact Joe to get your chapter merchandise.

Harry Nelson gave a quick flying report on his new plane - flying a Harmon Rocket, getting ready for paint. 24sq = 210mph

Young Eagles - Contact Darren to sign up for positions. Saturday June 10th 8am at Spencer Aircraft's hanger. Positions include phone scheduling, onsite sign-in, pilot / plane scheduling, certificate printing, concessions, crowd control, signage, setup / teardown, moving equipment and chairs, and of course Flying! Look for the signup sheet next month or email Darren for more info.

Kim Nicholas - is interested in a flyout to Napa Valley. Leave Friday afternoon, spend the weekend and return Sunday. If you are interested please contact Kim to see what we can setup. He's thinking of a trip sometime this spring or summer when there is nice VFR weather to make the trip. Looking for group of 4-5 that might be interested in going.

Andy

Thun Field Improvements

WSDOT Aviation's Local Airport Aid Grant Program has facilitated \$13.3 million for 39 different airport improvement projects in the state.

A total of 31 public-use airports in Washington will benefit from WSDOT's latest round of state, local and federal grants awarded during the 2005-2007 biennium. Of the total \$13.3 million awarded, WSDOT used approximately \$1.8 million in state grants to fund the projects. WSDOT also used \$288,423 in state funds to leverage more than \$10.8 million in federal funds.

Thun Field:

1. Property Acquisition for Taxiway Object Free Area.
2. Remove Tree Obstructions to FAR Part 77 Surface.
3. Install Automated Weather Observation System.

State \$31,514, Federal \$1,197,532

Astoria Swap Meet

Astoria's EAA Chapter 508 will be holding its first annual Aviation Swap-Meet on **June 24**, 2006.

When: 9:00-3:00

Where: Astoria Regional Airport, Bales and Twiss Hangars

Free Space - Free Admission

For information contact: Phil Bales (503)325-6533

Tiger Aircraft

Four Decades of Purebred Flying Passion.

1962 – Legendary designer James Bede designs the forerunner to today's Tiger—the BD-1, a two-seater with interchangeable wings and horizontal stabilizer components.

1964 – Bede sells the BD-1 design to American Aviation and stays on as a consultant for the production of the plane.

1969 – Bede's design debuts as American Aviation's AA-1 Yankee. The AA-1 is the forerunner of the AA-5 series (including the Traveler, the Cheetah, and the Tiger).

1974 – Military fighter-plane manufacturer Grumman Aircraft buys American Aviation, and the company is renamed Grumman American. The company begins producing the AA-5 Traveler, a modified version of the AA-1.

1975 – The Tiger is born. Grumman's engineers put their experience building naval fighters to work in designing enhancements to the AA-5 design. Based on their changes, Grumman replaces the AA-5 Traveler with the AA-5B Tiger, which boasts a larger engine (180 hp), a higher cruise speed (143 knots), and room for four.

1978 – Grumman sells its small aircraft division to Gulfstream Aerospace, who continues production of the Tiger.

1989 – American General Aircraft Corporation purchases the Tiger design from Gulfstream and produces the plane under the model number AG-5B, with some technological advances incorporated.

1999 – Tiger Aircraft, LLC begins plans for production of the AG-5B Tiger. A new construction facility is built in Martinsburg, WV.

2001 – In a much-anticipated celebration, Tiger Aircraft announces the Type Certification for the new Tiger AG-5B, and new Tigers begin to roll off the assembly line.

2002 – Adding to its achievements, Tiger Aircraft earns the FAA Production Certificate for the Tiger AG-5B. This is the first Production Certificate granted by the Northeast FAA in 23 years. The fleet of about 1800 previously produced Tigers will now begin to welcome new flying partners.

Oil Filter Mess

You could spend the \$26, or you could spend just a buck or two and still have a "dripless" filter change. All you need is a small funnel and some tubing. Secure the funnel right beneath the oil filter with some safety wire or whatever, and run tubing from the funnel down into a container.

Punch a hole at the top of the oil filter. Punch it at the AFT end of the filter -- which is better gravity-wise on a taildragger, and it also keeps the hole from interfering with the filter element when you want to remove it later. Loosen the filter 180 degrees. Punch another hole at what is now the top (letting air get in and speeding up the drain process).

I let it sit until it stops dribbling. Put masking tape or duct tape or whatever over the holes so residual oil doesn't drip as you rotate the filter the rest of the way off to remove it.

Not a drop anywhere -- works every time. Don't need a \$26 gadget!

Another old trick I tried once on one of the Mooneys... I went to a motorcycle shop and picked an old innertube out of the dumpster. Chopped a section of the innertube at the valve about 2" wide. Removed the valve stem. Slide the innertube section over the oil filter. Take a hammer & tail and punch the hole through the valve stem. Attach a tube to the valve stem, and run the tube down to your oil pan/collector. Rotate the filter, and it theoretically drains out the valve stem and through the tube. Better in theory than in practice. Oil still managed to seep out around the edges of the innertube section.

I like the funnel method, personally.

Dan Checkoway

Liquid Shim

I adopted a technique long used on the combat aircraft production line that served my homebuilding purposes very well. During the construction process, even military aircraft frequently have situations in which gaps between mating parts occur and must be shimmed prior to permanently fastening together. Particularly problematic is a "tapering gap" condition. Frequently, mating the wheel pants to the brackets exposes this condition and I'll address that in a moment. We've all seen RV's with puckers in the fuselage skin, usually at an intersection of longeron and bulkhead or stringer. This is caused by riveting the gap closed rather than taking the time to shim out the open void between the parts.

On the production line, a worker can easily spend hours and hours with a piece of aluminum shim stock and sanding disc in an attempt to fashion a shim, tapered or otherwise to fit acceptably within the confines of the gap. In an effort to reduce man-hour costs and enhance quality, a space age material was developed to address this tedious process. I don't know what the actual material was, we production types simply referred to it as "liquid shim." While the exotic material we used at McDonnell-Douglas is not generally available, I often made up a home brew which is nothing more than West System epoxy with lots of cotton floc mixed in (roughly to the consistency of peanut butter) to make it structural.

The process goes far faster than it sounds. After masking off the local area with bits of tape, the mixture is forced into the gap between the parts (i.e. bulkhead and skin) until some of it oozes from around the parts and out the rivet hole. Wearing latex

gloves helps. The liquid shim will find its way throughout the void and fill in the gap. Using a plastic scraper, clean up the excess ooze-out from around the general area to avoid excessive sanding later. After allowing the mixture to cure overnight, the hole is then reopened by passing a drill bit through it, the countersink retouched and finally the rivet shot. There you have it...a perfectly pucker free exterior skin.

Probably the most important application for liquid shim I found was precisely fitting the wheel pants to the metal brackets. On my RV, virtually all of the brackets met the interior of the wheel pants with a very noticeable and often tapering gap. It is tempting to simply torque down the screws mating the pants to the naturally flexible brackets but I believe all this really does is "preload" the brackets with an undue and constant stress and is a major reason why so many builders have reported cracking of the brackets over time. To address this common problem, an after-market stainless steel type wheel bracket became available. By shimming the brackets to the pants precisely in the first place, I believe the problem would go away. That's just my opinion though.

Some builders have used a variation of this technique to precisely "float" hinge halves into place particularly on the flaps and cowling. In fact, I long used a similar technique to help insure interchangeability between avionics doors on the T-45 nose cone. It was required you had to be able to remove the piano wire holding the hinge halves together with slight finger pressure alone...and demonstrate this with any random door pulled from stock. Believe me, it's not as easy as you might suppose. Liquid shim proved to be the only realistic way to consistently maintain interchangeability.

Rick Galati

and other steps to keep you flying safely through the golden years."

USER FEES FAR FROM SUCCESSFUL IN CANADA

The most vocal user fee proponents usually point north to Nav Canada to demonstrate the "success" of the concept. Yet since the commercialization of air traffic control in Canada and the imposition of direct fees for ATC services, the system has struggled financially. Now Nav Canada wants to impose new user fees on general aviation to try to make up for the shortfall. AOPA, on behalf of U.S. citizens flying in Canada, is objecting. "This proposal underscores why AOPA opposes a user fee-based system in the United States," said Andy Cebula, AOPA executive vice president of government affairs. "It illustrates why a user fee system does not provide stable funding and reinforces AOPA's stance that Congress (or Parliament in the case of Canada) is the appropriate 'board of directors' for a national air transportation system." Nav Canada wants to start collecting new "daily charges" from aircraft weighing less than three metric tons (less than 6,075 pounds) using eight major Canadian airports. The charge would start at \$5 a day and escalate to \$10 a day by 2008. "The U.S. national air transportation system is well served by the stable funding stream provided by the existing combination of taxes and general fund contributions," said Cebula. "We find no reason to support a different funding system in a foreign country, and we encourage Nav Canada to reconsider the proposal and not implement the proposed new fees." See [AOPA Online](#)

ARE OLDER PILOTS HAVING MORE ACCIDENTS?

An investigation conducted by The Associated Press, finding a disproportionate number of general aviation accidents among older pilots, was picked up by the media last week. The report concluded that pilots who are age 50 and older are more at risk than those 40 and younger. Much of the story focused on medical problems, which historically contribute to a fraction of a percent of accidents. (In 2004, only one accident was attributable to a heart attack. The causes were unknown for three other pilot incapacitation incidents.) By strictly comparing age to crash data, the report didn't consider that older pilots are more likely to own airplanes and fly more hours. AOPA last year launched its own study to look at the aging pilot issue and whether pilots are being treated fairly by insurance companies. While the numbers are still being evaluated, determining the causes is a complex business. Some pilots may be mentally sharper than their chronological ages. As the AP story pointed out, it's believed in the industry that wisdom and experience that comes with age can help make up for declining motor skills. "We're all getting older, and AOPA intends to find out what it can do to make sure pilots are being treated fairly," said AOPA President Phil Boyer. "We'll also look at whatever we can do to mitigate any problems, such as proficiency courses through the AOPA Air Safety Foundation,

Calendar

- May 13**, Kennewick Fly-In Breakfast. 7:30 – 10:30, (S98)
- June 3**, Chelan Fly-In, (S10)
- June 10**, **Young Eagles Day – Thun Field**
- June 17**, RV Fly-In, Scappoose (SPB)
- June 23-25**, Richland Fly-In, (RLD)
- June 30-July 2**, Northwest Formation Clinic, Redmond, (RDM)
- July 5-9**, **Arlington, 35th Annual Northwest EAA Fly-In.**
- July 22**, Concrete (3W5) Fly-In [Date change...formerly May]
- July 24-30**, **EAA AirVenture, Oshkosh (OSH)**
- August 18-20**, McMinnville Annual fly-In. (MMV)
- September 2, 3**, Van's Homecoming. Aurora State (UAO)
- October 26-29**, Copperstate Fly-In, Casa Grande, AZ (KCGZ)

Aerodrome - British word for airport. Exactly what you'd expect from a country that gives its airplanes names like Gypsy Moth, Slingsby Dart, and Fairey Battle Bomber.

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