



# The Bend High Desert Flyer of Chapter 1345

WEBSITE: <http://www.eaa1345.org/>

KBDN AWOS 134.425

MARCH 2012, VOL11, #3

## **PREZ SEZ:**

OK, so a lot of things are in the works and some great meetings are coming your way!

This month, March 14<sup>th</sup> (pizza arrives at 6 o'clock), we will be meeting at Steve Gibson's "RED HANGER"!

There, Steve will introduce himself and his aircraft service business. While there we will also be able to drool over Vern Goodsell's ¾ scale "Spitfire"! (Check out the link elsewhere in the newsletter for some very cool "spitfire" action).

Vern is a repeat offender out of Sisters Oregon, of building scaled down versions of WW2 fighters, both allied and axis aircraft. You're not going to want to miss this meeting (put a request into your favorite weather gods for good weather).

We have a new web meister! Lance Julander has graciously volunteered to be our new "IT" guy. So any good pictures and or information you want to put out to the electronic world, Lance is our man!

Elsewhere in your newsletter is a fly-out schedule that 617 is sharing and inviting us along. Nice neighbors, 617. I am planning to join as many as possible along with doing some 1345 fly-outs. Any suggestions? 617 is also requesting some volunteers for their "Young Eagle Days" Lets plan on helping out with more volunteers then they need (is there ever such a thing?)!

Speaking of "Young Eagles", our very own Devan Simkins has applied to the "Hayward Air Rally Scholarship, to attend this summer's EAA Air Academy". Devan and his father Eric, has put together a pretty impressive application to be the candidate from the Bend area. The scholarship covers all expenses (including transportation to Oshkosh) for the EAA Air Academy (total value is over \$2000/scholarship). Paige Westoby of Prineville was the scholarship recipient last year.

Folks, the Hayward Air Rally, provide this scholarship almost every year, and they have to almost beg for applicants!

Keep this in mind when you are giving a "Young Eagle" ride or if you know any young adult that would be thrilled (I know I would have been!) to be given this opportunity next year!

A few years ago, the "Collings Foundation" brought to Redmond, their B-17 and their B-24 for display and to sell rides. Our chapter was called on to provide some volunteers for crowd control and guard duty. Well I put a call out to the "Collings Foundation" to see if they are coming to the Central Oregon area this summer. Now that they know that there is interest, they might be doing just that! They already were planning a NW swing in June so when they make up their schedule, their B-17, B-24 and hopefully their P-51C might be gracing the Central Oregon skies! Now if they do stop here, we'll need volunteers and though I can't promise ANYTHING, last time I got a ride in the B-17 when they had an open spot and man, what a ride! Sometimes it pays to volunteer (thanks again Dave!)

## **Other notes:**

At our January meeting I spoke about model building. EAA is having an up to 70% sale on their models through March 31<sup>st</sup>, [Shop online](#) or by calling toll-free, [800-564-6322](tel:800-564-6322) so build a model and show it off. If you're into "paper airplanes" then check out this link, shows a world record flight!

[http://www.avweb.com/avwebflash/news/FormerQuarterbackBreaksPaperAirplaneRecord\\_206248-1.html](http://www.avweb.com/avwebflash/news/FormerQuarterbackBreaksPaperAirplaneRecord_206248-1.html) !

That's all for now so don't forget, Weather Gods, We want good weather for our March Meeting! See you there!

**Tom Phy**, President

## ***Treasurer's Report***

Financial for period 1/1/12 through 2/29/12

Total Income:	\$413.00
Total Expense:	\$430.00
Net Income (Loss)	\$-17.00
Cash Balance:	\$2,174.35

**Jack Watson**, Treasurer

## ***February Meeting Minutes***

I have not received minutes for the last meeting and since I could not attend, propose comments by Tom in 'PREZ SEZ' be used in lieu of minutes. Apologies for missing the last newsletter ... Internet access in the middle of the Tasman Sea was less than I expected!

**Mike Bond**, Newsletter Editor

## **The German**

This is a fascinating, nine minute, short film called "The German".

Particularly the incredible four minute footage of a desperate Spitfire vs. ME-109 dual.

You feel like you are there!  
Amazing computer work blended in with real photography.

Also an interesting factual story that most of us did not know.

History is rarely 'over'.

Now sit back and strap on your parachute harness ... it is the Summer of 1940 over the skies of England.

Listen to the perfect 'purr' of the Rolls Royce Merlin.

Watch this full screen. It's very well done. Click below:

[The German](#)

## ***March Meeting***

Meet for pizza March 14<sup>th</sup> at 6pm in Steve Gibson's "RED HANGER", next building south of the KBDN FBO. The meeting starting at 6:30pm

## ***Chapter 617 activities***

617 is planning a fly-out to the Cowboy Dinner Tree in Silverlake on June 23. We will need to make reservations not only at the CDT for dinner but also for those who want to spend the night there in a cabin; and to call the owner of the private airfield to be sure all will be OK.

Also, as I mentioned earlier, we plan to have a chapter fly-out to the Prosser flyin July 21. Of course, 617 gladly invites 1345 to join us on the two occasions. I'm going to try to get in touch with some of the So. Ore, Nor Cal chapters to see if they would like to join up with 617 to have a massive group going flying into Prosser. My vision is at least 25-30 planes arriving at the field in unison. Wouldn't that be cool!

We will be planning other events for picnic, breakfast and lunches later. Please spread the word to all pilots who would like to join us for either event and feel free to give them my email.

Chuck Godlasky

## ***UAVs are getting bigger ...***

Warthog UAV Conversion for Battlefield Air Support

DARPA (Defense Advanced Research Projects Agency) has a project to develop an unmanned Warthog (A-10 Thunderbolt II), which will provide battlefield-controlled close air support. The goal is to have the Warthog on target within six minutes of the request for support. DARPA expects that the control system could be used in the future for aircraft other than just the Warthog.

*From The Oregonian of Thursday, Nov. 9, 2006*

## **Experimental plane lands a place in aviation history**

A craft flown in Oregon decades ago will be displayed by an air and space museum

By John Foyston

When George Bogardus' home-built airplane made its third trip to Washington, D.C., it went by truck, and it probably traveled nearly as fast as when Bogardus first flew it east in 1947.

"Oh, I imagine it'd cruise at about 90 or 100 mph with that 65-horsepower engine," said Dick VanGrunsven, the Oregon aircraft designer who led a group of volunteers in restoring the 1939 home-built called Little Gee Bee.

Bogardus, who died in 1997, was an Oregon aviator who considered himself one of the so-called Beaverton Outlaws -- a group of pilots who flew home-built airplanes from Bernard Field, a gravel-runway airstrip that existed for 40 years where Cedar Hills Crossing is now.

"He had 18 or 19 gallons of gas, which gave him about four hours of range -- which is longer than you'd want to sit in that seat," VanGrunsven said. The cramped, bare-bones cockpit (eight instruments including the clock; no radio) included a ledge made of steel mesh that served as a perch for the 6-foot-plus Bogardus, who must've climbed into the 500-pound airplane the way a man might shrug into a too-tight overcoat.

No one will ever again climb into Little Gee Bee and yell "Contact!" while a line boy heaves on the wooden prop to start the motor. Corrosion in the fuselage and tail has grounded the silver, low-wing monoplane, and the engine is a mock-up. But the plane, which was shipped to Washington late, last month, will soon be suspended in midair at the National Air and Space Museum's Steven F. Udvar-Hazy Center near Washington Dulles International Airport as a reminder of when Oregon was a hotbed of roll-your-own aviation.

## **Flying and lobbying**

And it still is, thanks in part to Bogardus and Little Gee Bee, named after its owners initials (unrelated to the barrel-shaped Gee Bee air racers of the 1930s named after the Granville brothers). Bogardus' cross-country flights in 1947 and 1951 helped convince the feds -- then called the Civil Aeronautics Administration -- that home-builts were viable flying machines that deserved their own license category for home-built and experimental aircraft.

It ended a tussle that had simmered for a couple of decades. Oregon created a state board of aeronautics in the early 1920s to register airplanes and pilots for the first time. State inspectors issued small license plates to airplanes that passed muster, be they home-built or factory-made.

In the late 1920s, the federal government created what eventually became the Civil Aeronautics Administration to license airplanes and pilots. But it wouldn't issue permanent licenses for the home-builts being constructed at Bernard Field, Cornelius, Klamath Falls and elsewhere in Oregon. In a 1990 interview with *The Oregonian*, Bogardus said the federal experimental license was good for just 30 days while engineering tests were performed for permanent certification.

Not that the Beaverton Outlaws and other Oregon aviators were too worried -- they were licensed by the state. "The guys at the field kept right on building airplanes," Bogardus said. "People in Oregon have always been pretty independent, and we just thumbed our noses at the CAA."

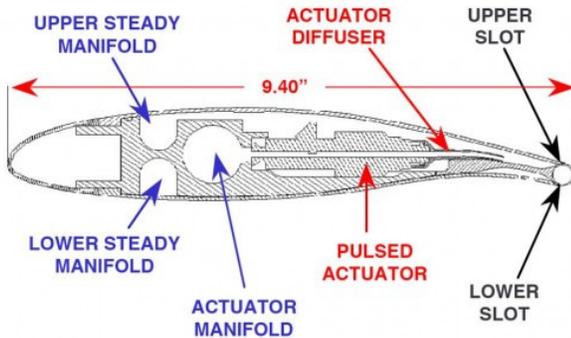
The feds stepped up enforcement in the late 1930s and eventually took Oregon to court, but the case was dismissed. Victory was brief, though: World War II grounded civilian aviation for the duration.

Follow up next month for the rest of the "Beaverton Outlaws" story.

# Pumped Up!

## Coefficient of Lift, that is ...

Compared to CL (coefficient of lift) of around 3.3 for a conventional STOL craft, careful routing of high-pressure airstreams over airfoil and high-lift device surfaces has resulted in CL values of 8.5 to 9.0. This makes use of the Coandă effect.

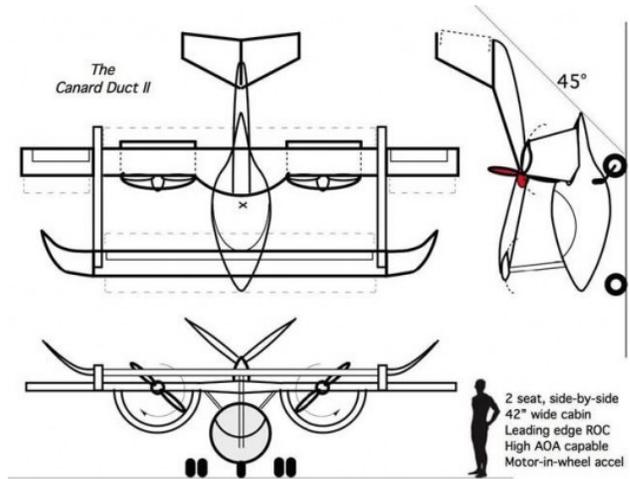


The CCW (circulation-controlled wing) approach reduces parts count over multi-slotted, slatted, and flapped airfoils, eliminates areas of potential failure, and equals or exceeds the performance of those more complex wing systems, with the promise of improved roll control and induced drag elimination through “tailored” circulation control.

A proposed Navy pneumatic channel wing developed in the NASA LARC program uses CCW/USB (upper surface blowing) and would be capable of STOL or Vertical STOL flight and perform thrust reversal for dead-stop landings without any moving external wing parts.

CCW promises an enormously simplified helicopter without cyclic or collective pitch. Elliptical airfoil rotor blades, with rounded trailing edges that nearly match their leading edges, and circulation-control (air under pressure being routed around the trailing edge), have demonstrated CL over 6. Conventional rotor blades produced around 1.2 to 1.5 at their stall angle. With full-span tapered slots blowing on the blades, the need for twist or mechanical angle of attack  $\alpha$  is eliminated reducing induced drag while providing pitch and roll control.

CCW has shown a 75% increase in liftable takeoff payload, 140% increase in usable CL, 30 to 35% lower takeoff/approach speeds and 60 to 65% reduction in takeoff and landing ground roll over a standard A-6 Intruder.



## A CAFE CCW light commuter airplane

Adding pulsed CCW for differential multi-axis control shows what general aviation aircraft might look like with electric power and CCW, a potent combination for quiet, high-performance flight with simplicity of operation. Such aircraft could reduce mechanical components to a minimum, increasing reliability and safety, and making the true commuter airplane a practical reality

## ... preceded by the Custer Channel Wing

Although current technology allows more efficient implementation, the concept is not new; this was patented in 1929 and tested by NACA in 1952!



With its propeller blast channeled through a semi-circular wing, an infinite CL was claimed. Such high lift would give the ultimate in STOL performance; shortening approach and departure distances. Aerodynamically, the high lift would enable reduced wing size, weight, and complexity, enabling enhanced low-speed safety and control.

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