



The Bend High Desert Flyer of Chapter 1345

WEBSITE: <http://1345.eaachapter.org/>

KBDN AWOS 134.425

DECEMBER 2012, VOL11, #12

PREZ SEZ:

Hello and Merry Christmas;

EAA 1345 is having our family & friends, Christmas Dinner/ meeting at McMenamins on Wednesday, December 12th 2012. We will meet in their "Smoke Room" which is located off of their main dining room, just past the bar.

The meeting starts at 6 o'clock with dinner off their full menu. McMenamins will be doing separate checks so you can help yourself to whatever you would like.

We only have room for 20 so contact Thomas Phy ASAP @ maxfly55@gmail.com .

The "election" for next year's officers will be part of the December meeting and since everyone is taking the same positions as last year, Shouldn't be too much to do (unless someone wants to take over a position)

I want to thank Mike Bond for his faithful service as our "Newsletter Editor Extraordinaire"! Mike has been doing his part almost from the beginning of our chapter, 10 years ago!

That's right ladies and gentlemen....

Our chapter is 10 years young.

So where do you want to see us go? Let's put our heads together and find the ways to grow our chapter, do more fly-outs, and have more "food & family events". This is something that all of our members are able to participate in and plan. We are all interested in (almost) all things aviation. So if you have something that peaks your interest, let's hear about it!

One of the ways I'd like to be more proactive as a group is through "Face book" or some other online media. Your thoughts are welcome.

Dues are due as of January for next year so break into your coin jar/ beer fund or just bring your checkbook. It's still a bargain at only \$20 per person, per year.

Till I see you at McMenamins, Have a safe and happy holiday season .

Thomas Phy, President

November Meeting Minutes

Minutes of a regular meeting of The Chapter, held on November 14, 2012, on the second floor of the Pro Air maintenance facility at 63138 Powell Butte Hwy.

ATTENDEES

In attendance were, Tom Phy, Jack Watson, Mike Bond, Ann Bond, Henry Graham, Jim Stone, Jim Mateski, Dennis Douglas, Bruce Myers, Mike Pederson, David Waltman & guest speaker Sonja Englert.

CALL TO ORDER

Before the formal meeting we enjoyed delicious chili and cornbread, provided by members ... it was concluded we should do this again at future meetings!

President Thomas Phy called the meeting to order at 6:35 p.m.

MINUTES & TREASURER'S REPORT

Both the September minutes and Treasurer's report were published in the October newsletter, without objection or correction so they were accepted as published.

PROGRAM

President Phy then introduced the speaker for the evening, Sonja Englert, an aeronautical engineer with some twenty years of experience with companies such as Columbia Aircraft (Cessna) and Adam Aircraft, to name but two of her recent assignments. The group then enjoyed a sixty-minute computer/video presentation by Sonja of her latest project, a composite Motor Glider, followed by a video of her flight to Oshkosh in July.

Meeting Minutes -- continued

RAFFLE

President Phy then conducted a 50/50 raffle, which generated a pot of \$38.00 with \$19.00 going to the lucky winner.

ADJOURNMENT

The meeting adjourned at 7:45 pm to reconvene, at the chapter Christmas Party, at a date, time & place to be determined. **It's McMenamins ... see Prez Sez**

Jack Watson, Secretary/Treasurer

Treasurer's Report

Financial for period 1/1/12 through 11/30/12

Total Income:	\$805.00
Total Expense:	\$798.81
Cash Balance:	\$2088.74

Jack Watson, Treasurer

Thanks to Dennis Douglas for sending the following --

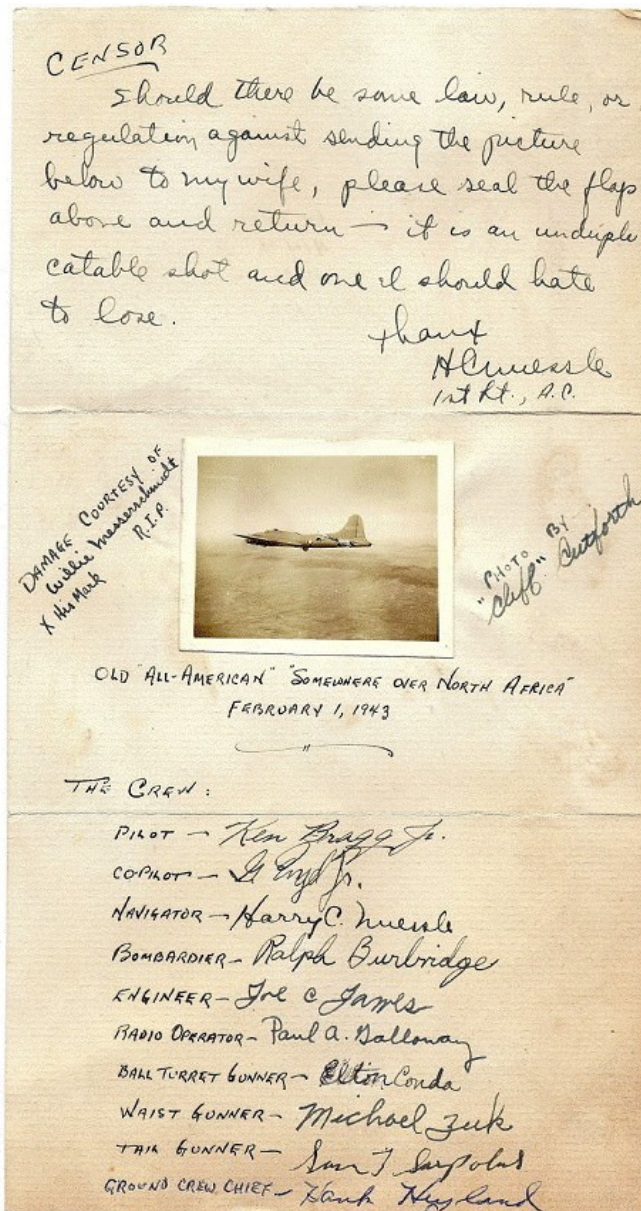
B-17 survival in 1943

A mid-air collision on February 1, 1943, between a B-17 and a German fighter over the Tunis dock area, became the subject of one of the most famous photographs of World War II.



An enemy fighter attacking a 97th Bomb Group formation went out of control, probably with a wounded pilot then continued its crashing descent into the rear of the fuselage of a Fortress named *All American*, piloted by Lt. Kendrick R. Bragg, of the 414th Bomb Squadron. When it struck, the fighter broke apart, but left some pieces in the B-17. The left horizontal stabilizer of the Fortress and left elevator were completely torn away.

The two right engines were out and one on the left had a serious oil pump leak. The vertical fin and the rudder had been damaged, the fuselage had been cut almost completely through connected only at two small parts of the frame and the radios, electrical and oxygen systems were damaged. There was also a hole in the top that was over 16 feet long and 4 feet wide at its widest and the split in the fuselage went all the way to the top gunner's turret.



Although the tail actually bounced and swayed in the wind and twisted when the plane turned and all the control cables were severed, except one single elevator cable still worked, and the aircraft still flew - miraculously! The tail gunner was trapped because there was no floor connecting the tail to the rest of the plane.

The waist and tail gunners used parts of the German fighter and their own parachute harnesses in an attempt to keep the tail from ripping off and the two sides of the fuselage from splitting apart. While the crew was trying to keep the bomber from coming apart, the pilot continued on his bomb run and released his bombs over the target.

When the bomb bay doors were opened, the wind turbulence was so great that it blew one of the waist gunners into the broken tail section. It took several minutes and four crew members to pass him ropes from parachutes and haul him back into the forward part of the plane. When they tried to do the same for the tail gunner, the tail began flapping so hard that it began to break off. The weight of the gunner was adding some stability to the tail section, so he went back to his position.



The turn back toward England had to be very slow to keep the tail from twisting off. They actually covered almost 70 miles to make the turn home. The bomber was so badly damaged that it was losing altitude and speed and was soon alone in the sky. For a brief time, two more Me-109 German fighters attacked the *All American*. Despite the extensive damage, all of the machine gunners were able to respond to these attacks and soon drove off the fighters. The two waist gunners stood up with their heads sticking out through the hole in the top of the fuselage to aim and fire their machine guns. The tail gunner had to shoot in short bursts because the recoil was actually causing the plane to turn.

Allied P-51 fighters intercepted the *All American* as it crossed over the Channel and took one of the pictures shown. They also radioed to the base describing that the empennage was waving like a fish tail and that the plane would not make it and to send out boats to rescue the crew when they bailed out. The fighters stayed with the Fortress taking hand signals from Lt. Bragg and relaying them to the base. Lt. Bragg signaled that 5 parachutes and the spare had been "used" so five of the crew could not bail out.

He made the decision that if they could not bail out safely, then he would stay with the plane and land it.

Two and a half hours after being hit, the aircraft made its final turn to line up with the runway while it was still over 40 miles away. It descended into an emergency landing and a normal roll-out on its landing gear.



When the ambulance pulled alongside, it was waved off because not a single member of the crew had been injured. No one could believe that the aircraft could still fly in such a condition. The Fortress sat placidly until the crew all exited through the door in the fuselage and the tail gunner had climbed down a ladder, at which time the entire rear section of the aircraft collapsed onto the ground. The rugged old bird had done its job.



B-17 "All American" (414th Squadron, 97BG) Crew:

Pilot- Ken Bragg Jr.
Copilot- G. Boyd Jr.
Navigator- Harry C. Nuessle

Bombardier- Ralph Burbridge
Engineer- Joe C. James
Radio Operator- Paul A. Galloway
Ball Turret Gunner- Elton Conda
Waist Gunner- Michael Zuk
Tail Gunner- Sam T. Sarpolus
Ground Crew Chief- Hank Hyland

Radical bi-directional flying wing design gets NASA funding



The supersonic bi-directional flying wing aircraft in high-speed configuration ...

A University of Miami team has been awarded a \$100,000 grant from NASA's Innovative Advanced Concepts (NIAC) program to continue development of a plane with a four-pointed star design. By rotating in mid air, the plane can transition between broad-wing subsonic and shorter wingspan supersonic configurations. Aircraft design is usually a compromise between subsonic and supersonic performance.



The supersonic bi-directional flying wing aircraft in low-speed configuration ...

Variable-sweep wing (or swing wing) aircraft, such as the F-14 Tomcat and B-1 Lancer, have wings that are spread broadly at takeoff and low speeds and can be swept back while in flight for improved performance at high speeds.

The supersonic bi-directional flying wing (SBiDir-FW) aircraft tackles the problem in a different way. It would take off in one orientation with broader wings, before rotating 90 degrees in flight to transition to high-speed mode with a shorter wingspan.

The entire surface of the SBiDir-FW is used to generate lift. Passengers and cargo would be contained within the wide span, thick, rounded airfoil used at low speeds, while the high-speed wing would have a shorter span and a thin-sharp-edged airfoil to reduce drag at supersonic speed.

The aircraft would rotate into supersonic configuration by folding winglets attached to the end of the wings in subsonic configuration. Folding them up again would see the aircraft rotate back again to subsonic orientation once again. The engine pod on the back of the aircraft would also be rotated when switching modes.

Simulations show SBiDir-FW will produce no sonic boom, have low supersonic wave drag, and low fuel consumption. A preliminary computational fluid dynamics (CFD) simulation for a SBiDir-FW business jet indicates that at speeds of Mach 1.6 to 2.0, there is no sonic boom.

The \$100,000 NIAC grant is intended to help the research team refine the aircraft design using CFD, examine the feasibility of the design, and conduct wind tunnel testing to verify the aircraft's performance at supersonic speeds and its sonic boom signature.

Silent and Efficient Supersonic Bi-Directional Flying Wing

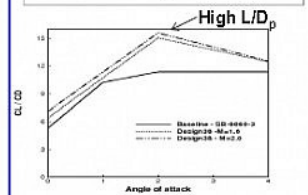
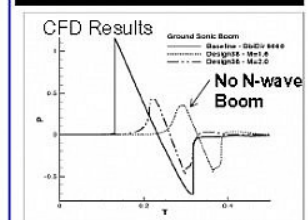
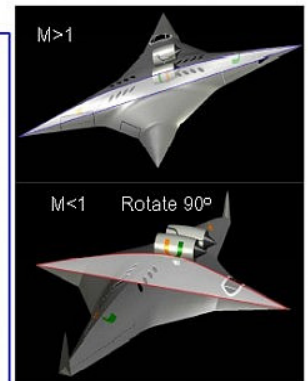
G.-C. Zha, L. Cattafesta, F. Alvi

Concept:

- Revolutionary Concept for Supersonic Flight
- Symmetric about both longitudinal and span axes
- Flying Wing Rotate 90° between supersonic & subsonic
- Remove aerodynamic conflict between low speeds and high speeds
- Slender supersonic configuration naturally translates to high subsonic aspect ratio
- High performance at both subsonic & supersonic speeds
- Preliminary Business Jet Configuration ($M=1.6-2.0$) achieves High L/D_p with high aerodynamic efficiency
- Remove sonic boom due to smooth ground over pressure signature (no N-wave)

Proposed Tasks:

- 1) Design refinement with CFD;
- 2) Mission analysis;
- 3) Wind tunnel testing verification



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