

# Tower Talk

John Livingston Chapter

May 2015

## Upcoming Events:

### May Chapter Events

- **2 - Saturday, 8:30:**  
Breakfast, Cedar Falls Family Restaurant
- **5 - Tuesday, 7:00:**  
B-17 Committee Meeting, Airport Conference Room
- **19 - Tuesday, 7:00:**  
Chapter Meeting, Airport Conference Room

### June Events

- **11-14**  
B-17 Aluminum Overcast Tour Stop, ALO, Livingston Aviation 11 - Media Day 12-14 - Open to Public
- **13 - Saturday, 5:00:**  
Fly-In for Life, ALO, Livingston Aviation
- **20 - Saturday**  
227 Annual Picnic Location TBA

**Iowa DOT Calendar:**  
[www.iowadot.gov/aviation](http://www.iowadot.gov/aviation)

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## Runway Zero

by Warren Brecheisen,  
Chapter 227 President



Spring has finally arrived! Picnics (yeah), yard work (boo), camping (yeah), hiking (yeah), bugs (boo) and a multitude of other activities, but best of all FLYING! The pop-up flyouts, that John Bender coordinates, have been happening with increased frequency with the arrival of decent weather. He recently linked up with the FOGZ (Flying Old Geezers) flyout group from Marshalltown and we have had several breakfast/lunch flyouts with them. The last one I attended was at Pella on Thursday, April 16<sup>th</sup>. We had 12 airplanes and 14 people on that one. Not sure if that's a record, but it came close. John always takes us to good local restaurants on these flyouts and what better company can you have than a bunch of folks with a passion for flying.

There was a flight breakfast at Independence on the 18<sup>th</sup>, which was to be followed by a safety seminar on flying tail dragger airplanes. There was a stiff, easterly crosswind virtually directly at right an-

gles to the runway. The combination of

crosswind and turbulence from the hangars on the upwind side of the runway tested people's skills, including the writer's. I had two balked landings before I made it in. Unfortunately, a Cessna 195 from Dubuque, came to grief in the crosswind and was heavily damaged. Luckily the four occupants were not seriously hurt. The accident put a damper on the proceedings. After that I just wanted to go home so I returned to Waterloo and didn't stay for the seminar.

We need volunteers to help with the B-17 visit on June 12-14. Gary Witcombe is in charge of rounding up folks to help, so please contact him and get signed up. He will have sign up sheets at the chapter meeting on Tuesday, April 21<sup>st</sup>. There are several types of positions available so signing up early will provide you with the best opportunity to

choose one that best matches your skills.

It's looking more and more like the Pilots Bill of Rights 2 bill will be passed by Congress, but it's not out of the woods yet. As I'm sure all of you know, the provision to drop the Class III medical requirement for many pilots that fly planes like most of us fly is a key part of the legislation. Both AOPA and EAA have links on their websites that allow you to contact members of Congress that represent you and inform them of your support. If you haven't already done so please take advantage of these sites to let your representatives know that you favor this bill.

Let's get some daylight between the tires and the ground!

Warren Brecheisen  
President,  
EAA Chapter 227

**April Meeting Program:  
Ed Leo, Spectrographic Oil Analysis**

*“...the value of analysis...”*

After the Chapter Meeting on April 21<sup>st</sup>, we had as our guest speaker, Mr. Ed Leo of Northland Oil. Ed gave a very informative presentation on Spectrographic Oil Analysis for aviation. He gathered samples of aviation oil and

analyzed them for our program. Ed walked us through the indicators and the value of analysis. The program was very beneficial for everyone who owns or operates an aircraft engine. Thank you to Ed Leo



for a terrific and educational program.

**SAVE THE DATES!**

**B-17 EXPERIENCE HISTORY EVENT - JUNE 12-14**

**FLY-IN FOR LIFE - JUNE 13**

**Experience HISTORY**

Join us for an unforgettable experience aboard one of the few remaining airworthy B-17s in the world. Visit [B17.org](http://B17.org) or call 800-359-6217 for more information and to reserve your flight.

**EAA Members: \$409**    **Non-Members: \$449**  
(Includes a FREE 1-year EAA Membership)

**Waterloo Regional Airport - June 12-14, 2015**  
**Hosted by EAA Chapter 227 - [eaa227.com](http://eaa227.com)**

The above prices are for advance bookings only. A 2% payment plan is available. Flights purchased on site are \$425 for EAA members and \$475 for Non-members. Once the B-17 is on location, the discounted prices are no longer available for that date.  
© 2015 Experimental Aircraft Association, Inc. "Keep 'em Flying" Rewards for the B-17 help cover maintenance and equipment costs for a summer overhaul.

**FLY-IN FOR LIFE**  
LIVINGSTON AVIATION

Sponsored by:  
-ServiceMaster by Harris  
-Newton Aircraft Leasing  
-American Color Imaging  
-Livingston Aviation

When: June 13th From 5:30-9:00 PM  
Where: Livingston Aviation, Waterloo Airport  
Live Music by: Checker and the Bluetones  
Everyone is Invited

Cost: \$10.00 for Burgers, Sides & Drinks (PIC Eat Free)  
All profits go to support the American Cancer Society  
Contact: Joel Harris at [joel.harris@forbin.net](mailto:joel.harris@forbin.net)

Art and Photo Design by cathypharris.com



*Relive history and celebrate the 70<sup>th</sup> Anniversary of the end of World War II aboard one of the few remaining airworthy B-17s in the world!*

EAA Chapter 227 will host a tour stop by the

## **B-17 Flying Fortress *Aluminum Overcast***

**Waterloo Regional Airport (ALO)**

**Livingston Aviation**

**June 12-14, 2015**

**Flight experiences at 10:00-11:00-12:00-1:00 daily**

Pre-booking flights is encouraged and offered at the discounted price of \$409.00 (EAA members) & \$449 (non-members)

**Ground tours from 2:00-5:00 daily**

\$10 per person/\$20 per family (free under 8) / FREE - ALL Active Military or Veterans

For more information, visit [eaa227.com](http://eaa227.com) or contact Chris Roberts at [chrisr@cfu.net](mailto:chrisr@cfu.net)

Pre-book flights at [www.b17.org](http://www.b17.org), [www.eaa.org](http://www.eaa.org), or call 800-359-6217

***DON'T MISS YOUR CHANCE TO EXPERIENCE HISTORY!***

**Here is a chance for our EAA Chapter 227 members  
to get up close and personal with the B-17 *Aluminum Overcast***

We are looking for chapter volunteers to help June 12<sup>th</sup>-14<sup>th</sup> (Friday-Sunday)  
when the *Aluminum Overcast* is open to the public  
for flight experiences and ground tours at Livingston Aviation

Positions and shifts available:

1. **Crowd Control/Security:** primarily involved with keeping people safe and parking the B-17 in the display area

Available shifts are:

- A. 9:00 - 12:00
- B. 12:00 - 3:00
- C. 3:00 - 6:00

2. **Merchandise/Ground Tour Sales Table:** selling merchandise and tickets for ground tours at the trailer brought with the aircraft

Available shifts are:

- A. 9:00 - 12:00
- B. 12:00 - 3:00
- C. 3:00 - 6:00

3. **Ground Tours:** at or in the aircraft, controls the flow of the crowd and protects the aircraft

Available shifts are:

- A. 1:30 - 3:30
- B. 3:30 - 5:30

If you are interested in helping,  
please contact [Gary Witcombe](#) with your preferences  
and they will be added to the schedule

Please include:  
the day (Friday, Saturday or Sunday), the number of the position (1, 2 or 3)  
and the letter of the shift (A, B or C)

If you have any questions about volunteering, please contact Gary  
The sign-up sheet will also be available at chapter gatherings

***Thank you in advance for your participation!***

*FlyOut to Pella, April 15<sup>th</sup> by John Bender*



14 people went along.

10-12 airplanes (lost count).

Great Time!  
Great weather!  
Great day!

*For questions about upcoming flyouts, contact John Bender*



Visit [eaa227.com](http://eaa227.com) for:

- ⇒ Upcoming Events & the 2015 Chapter Calendar
- ⇒ Newsletters - Current & Archived
- ⇒ Young Eagles Information
- ⇒ Mel Kubicek Scholarship Information & Application
- ⇒ The Tool Box
- ⇒ Cool Aviation Links
- ⇒ How to Join 227
- ⇒ Members Only - Membership Roster, Meeting Minutes & ByLaws

*Send your articles, pictures & sale items to [chrisr@cfu.net](mailto:chrisr@cfu.net)*

## *FlyOut to Sully, April 23*

*by John Bender*



10 planes  
and 11 or 12  
people at  
SULLY this  
morning.

Great time!

**Contact**  
**John Bender,**  
**FlyOut**  
**Coordinator**  
**for more**  
**information**



**Tech Notes -****Can, Can't and Think About It! Part II****by Mike Lewis**

One of the questions I often hear is can someone help you, or can I buy a partially built homebuilt and finish it myself? That may be in the **think about it category**. You can certainly have help. If your help does not get paid, or your partially built project was built entirely by amateurs (non-commercial builders) you should have no problems due to your help. The FAA does not require a project to be built by only one individual.

What about paid help? This one you definitely need to think about. In general you can use some paid help. The issue is, however, that paid help cannot exceed 49% of the work. The FAA will need to be convinced that 51% of the project was done by amateurs. This issue gets to be a little more touchy when you are building from a kit. If your kit manufacturer has already completed 45% of the work by fabricating the kit, you don't have much room left for additional paid help. So how do you know how much work the kit manufacturer has completed?

There have been different methods over history. When I started in this hobby there were no kits, so when you started with a pile of wood

or steel tube, it didn't take much convincing for the FAA to recognize that you did at least 51% of the work. As the kit business evolved it became less clear. In the earlier days, a good photographic record showing what was provided in the kit and what the builder did would usually satisfy the inspectors. In more recent times a system of evaluating kits and a check list for establishing task values has evolved. The current system applies to kits purchased after September 30, 2009 or kits purchased before that date where commercial assistance was used. This system can be found in Advisory Circular 20-27G (as well as a great deal of other applicable information for homebuilders) with a blank form of the checklist and instructions in appendix 8. In this system the FAA has identified a pretty inclusive list of tasks required to build an airplane. The checklist is arranged in four columns; kit component, commercial assistance, amateur fabrication, and amateur assembly. A value is entered in the appropriate spaces. The instructions are pretty good including guidelines for evaluating tasks. At the end you will have a procedure for determining the percentage

of work provided by the kit manufacturer, by commercial services and by the amateur builder(s).

Within this system are provisions for a kit manufacturer to have his kit evaluated by the FAA. If the kit has been evaluated, the value of work (tasks) completed by the kit manufacturer will be entered in the appropriate spaces of the checklist. So does that mean that a kit that has not been evaluated cannot be built as a homebuilt? No, it just means that you will have to make those judgments and evaluations. By the way, I have heard references to kits being on the FAA approved kit list. Maybe a small point, but the FAA does not "approve" or "certify" kits. A list of evaluated kits may be found at: [www.faa.gov/aircraft/gen\\_av/ultralights/amateur\\_built/kits/media/amateur\\_built\\_kit\\_listing.pdf](http://www.faa.gov/aircraft/gen_av/ultralights/amateur_built/kits/media/amateur_built_kit_listing.pdf) I expect your kit provider can provide the necessary information if you can't find it.

Here is another hot topic. Do ADs apply to homebuilts? Let's talk about that next month.

**“The FAA will need to be convinced that 51% of the project was done by amateurs.”**

**“...you will have to make those judgments and evaluations.”**

## *The Safety Checklist: Wind Shear*

*by Dave Hummel*

This month I want to talk about an aviation weather hazard known as **wind shear**. We are already starting to see a lot of wind and thunderstorm activity this Spring.

### **1. What is wind shear and areas in which it likely to occur? (AC 00-6A)**

Wind shear is defined as the rate of change of wind velocity (direction and/or speed) per unit distance; conventionally expressed as vertical or horizontal wind shear. It may occur at any level in the atmosphere but three areas are of special concern:

- A. Wind shear with a low-level temperature inversion.
- B. Wind shear in a frontal zone or thunderstorm.
- C. Clear air turbulence (CAT) at high levels associated with a jet stream or strong circulation.

### **2. Why is wind shear an operational concern to pilots? (AC 00-6A)**

Wind shear is an operational concern because unexpected changes in wind speed and direction can be potentially very hazardous to aircraft operations at low altitudes on approaching and departing airports.

### **3. What airplane characteristics will be observed in the following wind shear situations?**

- A. A sudden **INCREASE** in head wind:

As a tail wind shears to a constant headwind, an increase in airspeed and altitude occurs along with nose-up pitching tendency. The usual reaction is to reduce both power and pitch. This reaction can be dangerous if the aircraft suddenly encounters a downdraft and tailwind. Now the situation demands the exact opposite of the pilot's initial reaction: a need for more performance from the airplane instead of less (more power/increased pitch attitude).

- B. A sudden **DECREASE** in head wind:

As a headwind shears to a calm wind or tail-wind, pitch attitude decreases, airspeed decreases, and a loss of altitude occurs. The required action is more power and higher pitch attitude to continue a climb or remain on the glide slope.

### **4. What types of weather information will you examine to determine if wind shear conditions might affect your flight? (AC 00-54)**

- A. **Terminal forecast:** any mention of low level wind shear (LLWS) or the possibility of severe thunderstorms, heavy rain showers, hail, and wind gusts suggest the potential for LLWS and microburst.
- B. **METARS:** inspect for any indication of thunderstorms, rain showers, or blowing dust. Additional signs such as warming trends, gusty winds, cumulonimbus clouds, etc., should be noted.
- C. **Severe weather watch reports, SIGMETS and convective SIGMETS:** severe convective weather is a prime source for wind shear and microbursts.
- D. **LLWAS (low level wind shear alert system) reports:** installed at 110 airports in the U.S; designed to detect wind shifts between outlying stations and a reference centerfield station.
- E. **Visual clues from the cockpit:** heavy rain (in a dry or moist environment) which can be accompanied by curling outflow, a ring of blowing dust or localized dust in general, flying debris, virga, a rain core with rain diverging away horizontally from the rain core, or tornadic features (funnel clouds, tornadoes). At night, lightning may be the only visual clue.
- F. **PIREPS:** reports of sudden airspeed changes on departure or approach and landing corridors provide real-time indications of presence of wind shear.
- G. **Airborne weather radar:** to detect convective cells.



# Chapter Classifieds

For Sale:

**Artex 110-4 ELT  
with remote switch  
and antennae.**

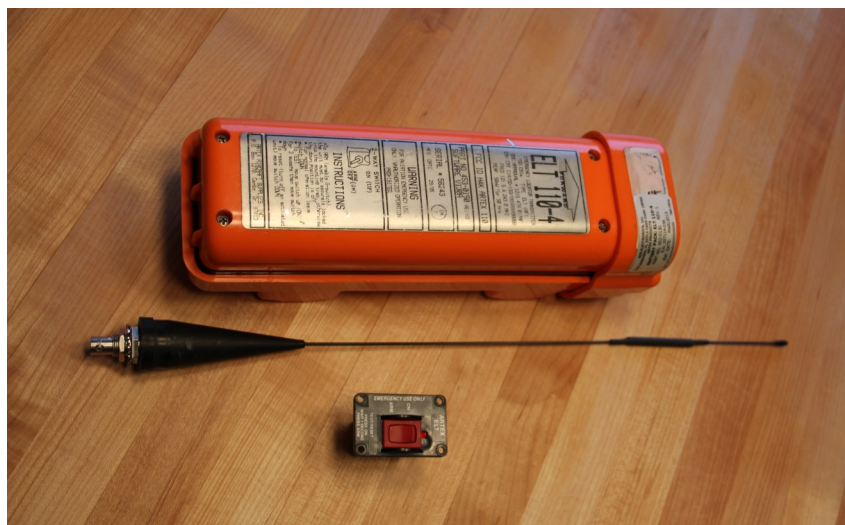
**\$100.00**

Contact

**Dave Roberts**

[drdave@cfu.net](mailto:drdave@cfu.net) or

319-277-8128



Whether you are looking to sell something or  
looking to buy,

please send your Classified Ad(s) to  
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*And be sure to let me know when it sells!*

## NEWSLETTER INFORMATION

If you have an article, picture, or anything else you would like to share in a future newsletter, please contact:  
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Visit our website:  
[eaa227.com](http://eaa227.com)

Do you have anything aviation related that you would like to sell? Please let us know so we can include items in our new  
**CLASSIFIED ADS**

## EAA CHAPTER 227 LEADERSHIP

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