

Tower Talk

John Livingston Chapter

September 2014

Upcoming Events:

September Events

- **2 - Tuesday, 7:00:**
Board Meeting, Airport Conference Room
- **6 - Saturday, 8:30:**
Breakfast, Cedar Falls Family Restaurant
- **16 - Tuesday, 7:00:**
Chapter Meeting, Airport Conference Room
- **20 - Saturday, 8:00:**
Young Eagles Rally,
Waterloo Regional Airport
eaa227.com

September Fly-Ins Schedule:

www.flyins.com
Iowa DOT Calendar:
www.iowadot.gov/aviation

October Events

- **21 - Tuesday:**
Chapter 227 Soup & Salad
Potluck, Airport Conference Room

Inside this Issue:

Young Eagles Rally— September 20 th	2
Chapter 227 at Thunder in the Valley II	3
Thunder in the Valley II in Pictures	4
Another Oshkosh Success	5
Tech Notes - Cal Ibrate by Mike Lewis	6
Chapter Classifieds	7
Leadership Contacts	8

Runway Zero

by Warren Brecheisen, Chapter 227 President

As I write this, I'm sitting under an EZ up among airplanes and members of our chapter, enjoying the banter and activity as another day at the Thunder in the Valley air show starts ramping up. It doesn't get any better than this.

Chapter 227 projects for the air show went well from my perspective. Our chapter members always pitch in and do whatever is required to get the job done. Setup for the breakfast was accomplished smoothly and quickly on Saturday morning. Breakfast attendance suffered largely due to rainy weather which kept people away most of the morning. The chapter made some money on the breakfast in spite of the poor turnout. Thanks to John Dutcher for arranging to have Boy Scouts help at the breakfast.

Also due to the weather, our transient aircraft parking crew didn't have much to do on Saturday or Sunday. There were only two fly-ins on Saturday, not counting Chuck Rottinghaus who

brought in his plane for the display. There were just a few more than that on Sunday.

I thought our aircraft display was fantastic. The new signs and banners left no doubt about who was showing airplanes. It was an attraction with lots of people stopping to view the airplanes and ask questions. Several new members were recruited at the display, and perhaps more will decide to join as a result of the promotional materials handed out and friendliness of our members. I noticed in the Sunday edition of the Courier that our own (now world famous) Rich Shepard was quoted and they actually mentioned our chapter.

I want to thank all the chapter members who helped with our air show projects. A special thanks goes to Gary Witcombe, who planned and organized the aircraft display. Special thanks also go to Bill and Jim



Salyer for their planning and advance work for aircraft parking. Although they weren't directly involved in our projects, Dave and Chris Roberts deserve credit for ensuring that we got tee shirts, golf carts, PIC lanyards, folding chairs from St. Pat's and protecting our interests with the air show committee. Many other chapter members went above and beyond to make our part of the air show a success. Thanks again to all of you!

Our next big event will be the annual Young Eagles Rally, which is being organized by Matt and Rebecca Evers. It is scheduled for September 20. They need pilots, runners and people for odd jobs such as registration and parking.

Continued on page 2

Runway Zero from page 1

**“Let’s fly
somewhere!”**

Please contact them right away (how about now) to volunteer. Also watch for emails and other communications from the Evers.



We are going to try a different venue for our breakfast on the first Saturday of the month. On September 6th it will be at the Cedar

Falls Family Restaurant on Center Street in Cedar Falls at 8:30.

I will not be able to attend, but I would like to get feedback to see if we should make this or “permanent” breakfast location.

Let’s fly somewhere!

Warren Brecheisen
President,
EAA Chapter 227

Young Eagles Rally – September 20th

**Please
Volunteer!
Contact
Matt &
Rebecca**

The chapter is hosting a Young Eagles Flight Rally on Saturday, September 20th, from 8am - 12 noon, at the Waterloo Airport.

We are in need of a wide variety of volunteers, for the following areas: runners, airplane parking, gate security, registration, concessions, ground school, announcing, and pilots.

Please call or email Matt & Rebecca if you're able to volunteer that morning, and haven't already let them know.

Phone: 319-266-0421
Email:
matthewevers@mchsi.com

Download the
Young Eagles Rally poster
at eaa227.com

Take to the Skies
and become a
Young Eagle!!!



EAA Young Eagles Flight Rally
Saturday, September 20, 2014
(weather permitting, with Sunday as alternate)
8:00 am – 12:00 noon
Livingston Aviation
Waterloo Regional Airport

For ages 8-17
Experience a free airplane ride!
You must bring a parent or legal guardian

Hosted by:
Experimental Aircraft Association (EAA) Chapter 227
For more information and for updates, visit our website at
www.eaa227.com

Chapter 227 at Thunder in the Valley II



Photos courtesy of Matt Evers

Another Oshkosh Success

Huge weekend fuels AirVenture attendance increase

The numbers are in, detailing another tremendous success for EAA AirVenture Oshkosh 2014. Attendance topped 500,000, an estimated 5 to 6 percent higher than in 2013. Those numbers were bolstered by huge increases on both Saturday and Sunday, August 2-3, which saw 20 percent more people coming through the gates than a year ago.

“It was a tremendous week on many levels, said EAA Chairman Jack J. Pelton. “We filled Wittman Regional Airport with aircraft for the first time in several years, with both aircraft camping and parking areas completely full at midweek.”

The cooperation and support of the airport’s east side community made possible the historic first appearance of the U.S. Air Force Thunderbirds at Oshkosh, which attracted many people to the event. And many of the 800 exhibitors reported outstanding business throughout the week, with some selling out of product.

“Certainly the Thunderbirds’ first performances at Oshkosh helped the attendance,” Pelton continued. “There was another factor, too – a renewed sense of optimism that was reflected in people coming to Oshkosh to celebrate the world of flight.



You could feel it among the attendees, exhibitors and our 5,400 volunteers whose work made the event possible.”

Other facts and figures:

- AirVenture’s KidVenture experienced record attendance in its 16th year.
- Total aircraft: More than 10,000 aircraft arriving at Wittman Regional Airport in Oshkosh and other airports in east-central Wisconsin.
- Total showplanes: 2,649 (308 more than in 2013) – including close to 1,000 homebuilts, 1,050 vintage airplanes, 303 warbirds, 122 ultralights and light-sport aircraft, 91 seaplanes, 40 rotorcraft, 38 aerobatic aircraft, and eight hot-air balloons.
- International visitors registered: 2,081 visitors registered from 69 nations, with Canada (505 visitors), Australia (416), and Brazil (194) as the top three nations. (This total includes only non-U.S.

visitors registered at the International Visitors Tent, so the actual international contingent is undoubtedly larger.)

- Media: 917 media representatives on-site, from five continents.
- EAA’s One Week Wonder project totaled more than 2,500 participants and resulted in a finished airplane on closing day, August 3.

Preliminary features for the 2015 AirVenture (July 20-26) include legendary aircraft innovator Burt Rutan who wants to share some innovations with the aviation community, and a new B-29 restoration, Doc, to help commemorate the 70th anniversary of the end of World War II. There are plenty of other highlights to come in the months ahead, and we’ll let you know as they’re confirmed. For more information, visit the [EAA website](#).

From eaa.org

TECH NOTES - Cal Ibrate *by Mike Lewis*

“...they should provide an extra measure of confidence for you.”

When you are getting ready for that first flight on your new home built I'm sure you have checked everything and double checked. Have you thought about instrument calibration? How do you know your cylinder head temperature gauge is accurate? (you do have a CHT don't you?). If you don't have a CHT I assume you have an oil temp gauge. Just be aware that oil temp is much slower to respond to an over temp condition that a CHT is but calibration is about the same issue. How about your tach? Note that none of the following methods are traceable to the Bureau of Standards, but they should provide an extra measure of confidence for you.

Cylinder head temp is pretty easy to calibrate. Buy a candy thermometer. Get a hot plate, and a container of oil. Heat the oil until your candy thermometer says it is about 350° F. Put the thermocouple in the oil and read your gauge. That will give you an idea of the accuracy of your CHT. So how do you know the candy thermometer is accurate? You don't really. You can however get a pretty good check on it by putting it in some boiling water. Water boils at around 210° F at our elevation. Again this is not the type of calibration that will guarantee your head temp is 321° F and not 323° F but it will certainly tell you that you are closer to 321° F than to 425° F. How about your tach? There are several small relatively

inexpensive optical tachs on the market. Maybe the chapter has one? Doug? There is another very simple method of getting an RPM check. Go out at night and taxi out in front of the bulk hangars on the west side. They have large mercury vapor lights on those buildings. Swieter's may also. Those lights flash at so times per second (actually 120). Sixty cycles per second is equivalent to 3600 rpm. Well you probably can't get 3600 rpm on the ground, but you can get 1800 (I hope!). If you run up to that neighborhood, then fine adjust your throttle until the prop appears stationary. When the prop appears stationary, the engine is running at 1800 rpm. Note your tach reading and that should tell you any tach error.

Pressure gauges are a little tougher. You could set up a stand pipe type manometer (a vertical clear tube) for a fuel pressure gauge. Each foot of gasoline will be equivalent to about .3 psi of pressure. If you have done some ground running and recommended fuel flow tests (full throttle) and observed fuel pressures, you are probably in pretty good shape. Oil pressure – boy that is tougher. The only thing I can think of is to test against another pressure gauge. If you have confidence in the reference gauge it should give you good confidence in your airplane's gauge. By the way, CFU used to be able to check oil pressure gauges for calibration. Don't remember

if they charged us for it or not. How about exhaust gas temperature? I wouldn't bother! There is so much variability in the way an EGT reads that it seems to me (barring something really unusual) that calibration is not necessary. The normal use for an EGT is to observe the change, i.e. peak temperature when leaning. You can observe that change whether the gauge is accurate or not. On a further note, as I found with my Diamant, you can probably lean just as accurately by the old method of "lean 'till roughness, then richen slightly". Of course if your engine is fuel injected, that doesn't work. One more note on temperature gauges. If your temperature gauge uses a thermocouple for a sensor (most CHTs do) then the temperature displayed by the instrument is really the difference between the sensor and a reference thermocouple. The reference thermocouple is usually located in the gauge itself, and most are calibrated for 70° F. So if your cabin temperature is 70° F and your head temp is 350° F the gauge will display 350. If however your cabin temp is 90° F and your head temp is 350° F the gauge will display 330° F. By the same token, if your cabin temp is 40° F and actual cylinder head temp is 350° F, the gauge will display 380° F.

So much collaboration!

Chapter Classifieds

Chapter 227 Historic Relic for Sale

The service cart in the picture (right) was put together by Dallas Aldridge, one of the founders of EAA Chapter 227. The Taylor Monoplane that he built and flew for many years can be seen at the Grout Museum. Dallas was a great guy and had a wonderful sense of humor. He was one of those people that made you feel important when they talked to you. After Dallas quit flying Mike Lewis ended up with the cart, which he used for a number of years. When Mike cleaned out his hangar, he turned over custodianship of the cart to me (Warren). I don't have a use for the cart any longer, so I'm donating it to the chapter. I'm thinking someone in the chapter could probably make good use of it, so I'm planning to have a silent auction at one of our meetings. In the meantime, contact me if you would like to inspect the cart and we can arrange a time. Call Warren 319-277-2118.



Used Garmin 196 for Sale

Includes everything in the picture (left) which is everything that came with it when new. In the original box. Excellent condition - looks almost new! Asking \$150.00.

Call Chuck Rottinghaus
319-269-3182.

Miter Saw, Delta 10"

Excellent condition - \$50.
Call Warren 319-277-2118.

Whether you are looking to sell something or looking to buy,
please send you classified ad to chris@cfu.net.

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:
Chris Roberts
507 Chateau Court
Cedar Falls IA 50613
c) 319-240-8128
h) 319-277-8128
chrisr@cfu.net

Visit our website:
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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Experimental Aircraft Association Chapter 227 publishes Tower Talk for the use education and enjoyment of Chapter members and others to whom it is provided. Chapter and national events, news of members, member projects, activities and general aviation items of interest to the membership are included. Editorial content is the opinion of the contributor and does not necessarily reflect the position of Chapter 227 or EAA and no claim is made for technical accuracy of material presented. Meetings are normally held the third Tuesday of each month in the Airport Conference Room. Please contact any officer for information about Chapter activities.

