

# Tower Talk

John Livingston Chapter

September 2015

## Upcoming Events:

### September Events

- **1 - Tuesday, 7:00**  
Board Meeting, Airport Conference Room
- **5- Saturday, 8:30**  
Breakfast, Cedar Falls Family Restaurant
- **15 - Tuesday, 7:00**  
Chapter Meeting, Airport Conference Room
- **19 - Saturday, 8:00 -12:00**  
Young Eagles Rally, Livingston Aviation

### October Events

- **20 - Tuesday, 6:00**  
Chili, Soup, & Salad Potluck, Livingston Hangar

### Iowa DOT Calendar:

[www.iowadot.gov/aviation](http://www.iowadot.gov/aviation)

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## Runway Zero

by Warren Brecheisen,  
Chapter 227 President



Another Oshkosh has come and gone. I hope you had a chance to attend Airventure for at least one day. I had a great time. I got to see a bunch of friends that I typically only see at the convention, i.e. once a year. I also got to help some people fix problems with their airplanes, making new friends as an added benefit. As always, there was a veritable feast of cool things to buy and I couldn't resist getting a new headset, so I came home with a lighter wallet.

While at Airventure, I had the opportunity to meet the new Chapter Manager, Brett Hahn and hear him speak. It sounds like there are some new and exciting ideas under development that may help chapters stay viable and grow. For example, instead of the past "top down" philosophy for managing chapters a new "bottom up" approach is being proposed which will enable chapters to

highly influence the policies and programs that EAA implements to fulfill the chapter needs. I'm looking forward to seeing how this works.

I have had some interesting responses to my challenge regarding how to promote general aviation. Good news-if you haven't responded to me with your ideas, there's still time. I plan to go through all the ideas with the Board. The Board members will discuss the ideas and produce a final consolidated list. The chapter will then vote on which idea(s) to actually implement.

Election of officers will be held in November. The Board will be selecting an election committee at the September Board meeting. The election committee is supposed to be composed of members that are not on

the Board, so please consent to be on the committee if you are called. Ideally, the committee would present the slate of candidates at the October meeting, but since that's our Fall potluck this will happen on election night (November meeting). Normally we have only one candidate for each position anyway so this process should work.

Our annual Young Eagle Rally will be held on September 19<sup>th</sup>. Matt and Rebecca Evers need volunteers to fill a variety of jobs for this event, so please contact them and get signed up to help.

Thanks to Mike Papenthien ("Pappy") for presenting a very interesting program on his experiences flying the F-14 Tomcat in the Navy.

*Continued on page 2*

## *Runway Zero from page 1*

**“Come and  
join the fun.”**

Need an excuse to fly? Go on one of John Bender’s Fly, See and Eat fly outs. We’ve been having some really great times on these fly outs this summer. Come and join the fun.

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

Warren Brecheisen  
President,  
EAA Chapter 227

## **Chris Roberts Receives Newsletter Editor Award**

At the chapter meeting on August 18<sup>th</sup>, Warren presented the EAA 2015 Newsletter Editor Award to Chris Roberts. Warren received the award for Chris at the Chapter Leadership breakfast during AirVenture.



“This award belongs to the chapter,” Chris states, “and to all the people who contribute their articles and pictures. Without them there wouldn’t be a newsletter, they’re the ones who deserve the recognition. They make my job easy.”

## ***Don’t Miss the 227 Young Eagles Rally! Saturday, September 19***

The chapter will host a Young Eagles Flight Rally  
Saturday, September 19<sup>th</sup>, 8am - 12 noon  
(rain date: Sept. 20<sup>th</sup>)

Waterloo Regional Airport, Livingston Aviation

**Let  
Matt & Rebecca  
know if  
you can help!**

We are in need of a wide variety of volunteers, for the following areas:

- ⇒ runners
- ⇒ airplane parking
- ⇒ gate security
- ⇒ registration
- ⇒ ground school
- ⇒ pilots

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

Phone: 319-266-0421

Email: [matthewevers@mchsi.com](mailto:matthewevers@mchsi.com)

***Please help advertise the event by posting the flyer around the area!***

***Take a FREE airplane ride & learn about flying:  
become a Young Eagle!***



# **EAA YOUNG EAGLES FLIGHT RALLY**

**Saturday, September 19, 2015**

(weather permitting, with Sunday as alternate)

**8:00am–12:00pm**

**Waterloo Regional Airport**

**Livingston Aviation**

**For ages 8-17**

**You must bring a parent or legal guardian**

Hosted by:

Experimental Aircraft Association (EAA) Chapter 227

For more information, visit [www.eaa227.com](http://www.eaa227.com)

### ***August Meeting Program:***

***Thank you  
Mike  
for a  
remarkable  
program!***

### ***Mike Papenthien, His Personal Chronicle of Flight***



After the August Chapter Meeting our own Mike Papenthien thrilled us with a fascinating program on his personal chronicle of flight. You may know Mike as a Flight Instructor and as a retired Airline Pilot, but he is also a former Naval Aviator who flew fighter jets off of aircraft carriers! Mike gave us a rare insight into his experiences in the Navy, flying some of the most amazing missions imaginable. He shared stories, pictures and videos which amazed us all. You can see a video from his presentation on the 227 website, Cool Aviation Links page entitled: Tribute to the Grumman F-14 Tomcat. Thank you Mike! It was a truly inspiring evening.

***For  
questions  
about  
upcoming  
flyouts,  
contact  
John Bender***



### ***Belle Plaine Fly Out, August 21 by John Bender***

We had a great flyout today.  
5 planes, 6 people.  
Great breakfast at Lincoln Café  
downtown Belle Plaine.







**You are invited to**  
**Mel Hemann's**  
**Farewell**  
**PARTY**

Come for a time of fellowship and to wish Mel  
farewell as he moves to Florida to stay this fall...

**Sunday October 18<sup>th</sup>, from 3-5 p.m.**

**At Livingston Aviation-Waterloo Airport**  
**Please RSVP by calling (319)234-1783**

***Tech Notes -******Smoke and Mirrors - Part 3******by Mike Lewis***

**“...you need  
to be  
cognizant of  
the current  
requirements...”**

In the last couple months, I talked a bit about the master relay and charging system. Once we have some form of electrical system, we have the capability to start the engine via a starter motor. Once again a relay is used to switch the current to the starter motor. Make no mistake, this is a huge current, maybe a couple hundred amps. Thus the starter relay must be able to switch that kind of current, and the wire from the starter relay contacts must be up to the task. I have seen diagrams that use a #4 wire for the starter. That seems a bit light to me, particularly with some of the larger, higher compression engines. I would consider a #2 as a minimum for anything larger than a VVV. I noticed I forgot to identify the wire size on my RV-4 diagram, but if memory serves me I think I used a #00.

The starter coil may be controlled by a momentary pushbutton switch, or a keyed switch that is part of the mag switches.

That is the heavy part of the electrical system. As mentioned before, in operation both the battery positive and the alternator output (B terminal) are connected to the bus. The bus bar may be an actual copper bar. Seems like in the Diamant it was a copper bar 1/8 in thick and about 5/8 inch wide with tapped holes for every connection point. The RV was a bit smaller and had thru holes that screwed to a row of circuit breakers. I have seen the bus actually made as a series of ring terminals daisy chained together. I see nothing wrong with that, other than you need to be cognizant of the current requirements through that daisy chain. If you are supplying current at one end and say you have a 60 amp alternator, that daisy chain needs to be able to handle the 60 amps and that makes for some pretty big wire and terminals.

Your electrical devices can then be connected to the bus through proper circuit breakers or fuses. You can review the diagram I provided last month for some ideas. Bear in mind, the RV electrical system was pretty basic; only slightly more complex than Jim's J-3!

You can arrange your electrical devices in what seems like a logical arrangement for you. Then you can establish wire sizes and circuit protection (breaker or fuse) sizes. A note here: the purpose of the circuit breaker (or fuse) is to protect the wiring, not the device. Below is a table listing accepted protection size for various conductor sizes:

**“You can  
arrange your  
electrical  
devices...”**

Copper Cable Size (#)	Circuit Breaker Recommended	Fuse Size Recommended
22	5	5
20	5(7.5)	5
18	10	10
16	15	10
14	20	15
12	25/30	20
10	35/40	30
8	50	50

*Continued on page 7*

## ***Tech Notes - from page 6***

You should be able to find the current draw for each of your devices. That will tell you the minimum wire size that should be used and the appropriate protection device. In some cases you may wish to use larger wire sizes to minimize voltage drop or for mechanical reasons. You can use a smaller breaker than the wire's capacity but don't use a larger one. Also you don't want to size wire and breaker smaller than the device requires or you will have nuisance tripping.

Wow – this is getting long. Let's continue one more month.



### ***Chapter 227 is now on Facebook!***

Dave and Chris Roberts are creating a chapter presence on Facebook. It is a work in progress and, thus far, highlights some of our events. Our page is: [EAA Chapter 227](#). If you have any comments or suggestions, please contact Dave or Chris.

***Please visit [EAA Chapter 227](#) and "Like" us!***

## ***FAA Promises Strict Action Against Illegal Drone Users***

***from eaa.org***

The FAA is responding to a sharp increase in drone encounters with manned aircraft. In a [statement](#) released last week, the agency said pilot reports of drones have increased from 238 in 2014 to more than 650 so far this year. The FAA is sending a clear message that they will seek fines, and even possible criminal charges for illegal use of drones. FAA certified pilots who fly their drones illegally could also be placing their certificates at risk.

Uninformed and illegal uses of drones not only pose serious risks to manned aircraft, but have proven to endanger public safety as well. Drones have recently interfered with firefighting operations in Southern California and British Columbia, grounding firefighting aircraft while wildfires rage on.

Drones are not toys. While flying them can be fun, and in many cases commercially lucrative, it is imperative that both recreational and commercial drone operators are familiar with their regulatory limitations as well as the airspace in which they are operating. EAA was one of the initial partners in the [Know Before You Fly](#) campaign created in cooperation with the drone and model aviation communities. We encourage all drone operators to visit that web page to learn how to safely share the airspace with manned aircraft.

Additionally, the FAA is encouraging members of the public to report suspected illegal drone use to local law enforcement.



Photo credit: Tyson Rininger

***Look for  
"Tech Notes"  
in the  
October  
Tower Talk***

***"...report  
illegal drone  
use to  
local law  
enforcement."***



*Save the Date!*

*Help us celebrate Chapter 227's*

# *50<sup>th</sup> Anniversary*

*at the*

*Chili, Soup & Salad Potluck*

*October 20, 2015 6:00pm*

*Livingston Hangar*

*If you would like to be a part of the  
CELEBRATION COMMITTEE,*

*please contact Chris Roberts  
chrisr@cfu.net / 240-8128*



# Chapter Classifieds

For Sale:

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

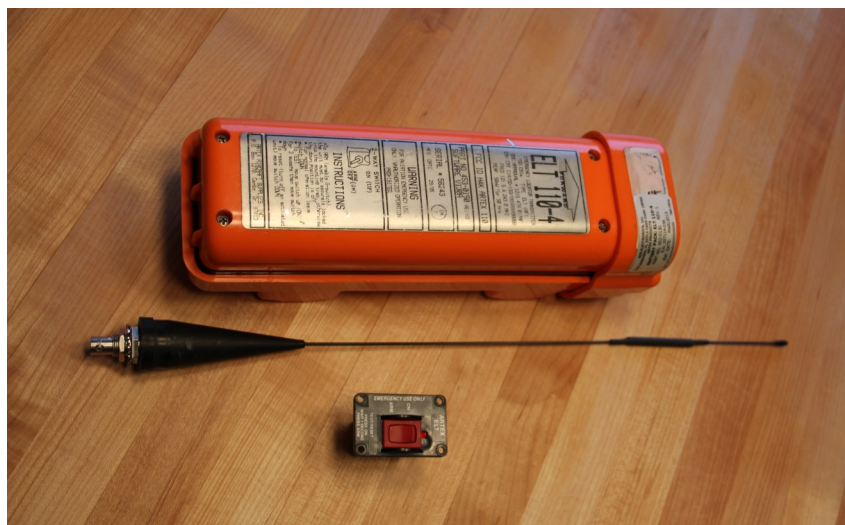
**\$100.00**

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  
[chrisr@cfu.net](mailto:chrisr@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  
[chriss@cfu.net](mailto:chriss@cfu.net)

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

### Executive Officers

President	Warren Brecheisen	<a href="mailto:n146wb@cfu.net">n146wb@cfu.net</a>	319-277-2118
Vice President	Marty Hoel	<a href="mailto:hoelm@mchsi.com">hoelm@mchsi.com</a>	319-231-1367
Secretary	Robert Gutknecht	<a href="mailto:robert.gutknecht.rg@gmail.com">robert.gutknecht.rg@gmail.com</a>	319-269-7970
Treasurer	Dave Roberts	<a href="mailto:drdave@cfu.net">drdave@cfu.net</a>	319-277-8128

### Board of Directors

Executive Officers	See Above		
Members at Large	Marty Hoel	<a href="mailto:hoelm@mchsi.com">hoelm@mchsi.com</a>	319-231-1367
	Dave Hummel	<a href="mailto:cfihum@cfu.net">cfihum@cfu.net</a>	319-266-9561
Past President	Dave Dunn	<a href="mailto:djrwcd@hotmail.com">djrwcd@hotmail.com</a>	319-296-2914

### Standing Committees/Positions

Membership	Dave Hummel	<a href="mailto:cfihum@cfu.net">cfihum@cfu.net</a>	319-266-9561
	Carl Campbell	<a href="mailto:annam39c@aol.com">annam39c@aol.com</a>	319-234-2394
Program Committee	Marty Hoel	<a href="mailto:hoelm@mchsi.com">hoelm@mchsi.com</a>	319-231-1367
	Dick Poppe	<a href="mailto:richpoppe@mchsi.com">richpoppe@mchsi.com</a>	319-287-4788
	Scott Weinberg	<a href="mailto:scottw@butler-bremer.com">scottw@butler-bremer.com</a>	319-404-4401
Nominating Committee	Warren Brecheisen	<a href="mailto:n156wb@cfu.net">n156wb@cfu.net</a>	319-277-2118
	Dave Hummel	<a href="mailto:cfihum@cfu.net">cfihum@cfu.net</a>	319-266-9561
	Dave Roberts	<a href="mailto:drdave@cfu.net">drdave@cfu.net</a>	319-277-8128
Budget	Dave Roberts	<a href="mailto:drdave@cfu.net">drdave@cfu.net</a>	319-277-8128
Newsletter	Chris Roberts	<a href="mailto:chriss@cfu.net">chriss@cfu.net</a>	319-240-8128
Webmaster	Dave Roberts	<a href="mailto:drdave@cfu.net">drdave@cfu.net</a>	319-277-8128
Public Relations	Chris Roberts	<a href="mailto:chriss@cfu.net">chriss@cfu.net</a>	319-240-8128
	Bob Dieter	<a href="mailto:dieter@cfu.net">dieter@cfu.net</a>	319-290-4447
FlyOut Coordinator	John Bender	<a href="mailto:JABGood@aol.com">JABGood@aol.com</a>	319-827-3513
Young Eagles			
Coordinators	Matt & Rebecca Evers	<a href="mailto:matthewevers@mchsi.com">matthewevers@mchsi.com</a>	319-266-0421
Tech Advisor	Mike Lewis	<a href="mailto:mlewis@cfu.net">mlewis@cfu.net</a>	319-266-6461
Tool Manager	Doug Mattson	<a href="mailto:dougmatton@gmail.com">dougmatton@gmail.com</a>	319-939-0179
Historian	Dave Dunn	<a href="mailto:djrwcd@hotmail.com">djrwcd@hotmail.com</a>	319-296-2914

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.

