

# Tower Talk

John Livingston Chapter

July 2015

## Upcoming Events:

### July Chapter Events

- **4 - Saturday, 8:30**  
Breakfast, Cedar Falls Family Restaurant
- **7 - Tuesday, 7:00**  
Board Meeting, Airport Conference Room

### July Events

- **20 - 26**  
EAA AirVenture Oshkosh  
[www.eaa.org](http://www.eaa.org)
- **25 - 26**  
Fly Iowa 2015, Mason City Municipal Airport (MCW)  
[www.flyiowa.org](http://www.flyiowa.org)

### September Events

- **19 - Saturday**  
Young Eagles Rally, Livingston Aviation

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

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## WOW! What a success!

by Marty Hoel,  
B-17 Tour Stop Chair



Once again EAA Chapter 227 stepped-up and produced an amazing event! The preparations were made, the B-17 arrived and the people came to experience this amazing aircraft. And, in the midst of it all, were the volunteers of our Chapter! The public came to see the massive airplane, to hear the thunder of the engines, to honor our veterans, to climb through the combat positions of our

heroes from a bygone age, and for some, to experience the flight of a lifetime. As a Chapter, it was one of our finest moments.

As is often the case with aviation, the weather did not fully cooperate. The media-day on Thursday fell victim to cloudy skies and low ceilings. We had gathered the television and cable-TV crews, radio personalities,

veterans and even the mayor... but as always, the weather rules. Luckily, our own Mark Woodley and Tim Newton ventured aloft in Tim's JetRanger and managed an aerial view for KWWL to broadcast.

On Wednesday evening the Cedar Valley Corvette Club was invited for a photo opportunity and we were treated to not only the B-17 but to an array of nearly thirty of these fine automobiles (along with one British sports car!).

Despite the missed opportunities on Thursday, the rest of the week-end provided friendly skies for the visit. Veterans were present to meet and talk with the crowd, souvenir sales were

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## ***B-17 Event***

*from page 1*

***“it was a week-end to remember...”***

brisk for those who wanted a lasting memento, our Chapter had refreshments available and sales of tours and rides exceeded our expectations. On Saturday evening there was a live band, the Cancer Benefit dinner and a host of general aviation fly-in guests. All-in-all, it was a week-end to remember and it was a great benefit for EAA227. The final tally is not



in, but we can expect to have earned a considerable financial benefit for the Chapter as well as a fantastic event for our community! Thank you to all who participated.

A special Thank You goes out

to tour sponsors: VGM, Bill Ramsey Realtors, FRA Financial Resources, Dan Deery Motors, Barmuda Companies and Hy-Vee. These folks made our event possible; please thank them with your patronage!

### ***B-17 Experience History Event, June 12-14, 2015:***

80 Flight Experiences

547 Paid Ground Tours

Almost \$6000 in Merchandise Sold

Many thanks to the Planning Committee:

Marty Hoel-Tour Stop Chair, Gary Witcombe-Volunteer Coordinator, Chris Roberts-Marketing Chair, Keith Kaspari, Tim Newton, Dave Roberts, Warren Brecheisen, Dave Hummel, Bob Gutknecht & John Dutcher

**AND TO ALL THE VOLUNTEERS WHO CONTRIBUTED THEIR TIME & TALENT TO THE EVENT!**



7 Generations of Corvettes

Photo Courtesy of James Geiger

## *Thank you for our Fantastic Media Support!*

Mark Woodley – KWWL  
 Dennis Magee – The Courier  
 Dennis Bowman – City of Cedar Falls, Cable TV Division Supervisor  
 Bob Foster – Program Director, 1650 “The Fan” KCNZ  
 Gary Edwards – Morning Show Host, NewsTalk 1540 KXEL  
 Ben Hoppenworth – KCRG

*We are very grateful for their support. We could have not have done it without them!*

## **Thanks for Your Help during the “Fly-In for Life”!**

*by Joel Harris*

Things went very well with the Fly-In. The weather cooperated nicely at the end of the day. I think we had about 7 or 8 fly-in and about 125 total. The band was very well received and did a wonderful job. Everything went very well. I want to thank the EAA members. Everyone was very helpful and kind. I can’t give them enough praise. They helped to make the event a success! Thank you again for all of your help.

## **EAA 227 Annual Picnic!**

*by Marty Hoel*

Low clouds and pouring rain could not dampen the spirits of the EAA 227 Annual Picnic! Once again Rhonda and Chuck Rottinghaus graciously hosted our annual fly-in/drive-in picnic at their private airstrip. Their fabulous hangar provided perfect shelter from the inclement weather. Chuck and Rhonda’s son, Alex, did the cooking and everyone brought a dish to share. The only thing better than the food and the surroundings were the companionship and good conversation. We all ate our fill and had a great time.



Thanks again to Chuck and Rhonda... we are all looking forward to the next time with hope of better weather so that we can fly-in!

## **Fly-Out to Belle Plaine 5-28** by Warren Brecheisen



Here is a panorama shot that I took of the FOGZ (Flying Old GeeZers-Marshalltown) fly out to Belle Plaine. The air was very smooth and visibility was good, so the flying was idyllic. We had 11 airplanes (six of which were homebuilts) and 13 people showed up for breakfast at the Lincoln Café. The picture shows all the airplanes. We had a great time swapping lies with the Marshalltown group and trading rhubarb with the waitress at the café.

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## **Mason City Fly-Out 6-10** by John Bender

There were about 10 of us today and we had a great time! Special thanks to John Dutcher for bringing 3 first time fliers. We advised them that after a couple weeks of therapy, they should be back to normal - HA HA HA ! Really glad they joined our group.



**Do you have an idea for a Fly-Out?**

Please contact John Bender at  
[JABGood@aol.com](mailto:JABGood@aol.com)

## *Independence Cookout 6-23* *by John Bender*

There were about 200 people and 45 planes.  
Super weather!  
Great event!



## ***EAA AIRVENTURE OSHKOSH - JULY 20-26, 2015***

### ***Experience an Aviation Event Like No Other!***

Whether you are looking to admire more than [10,000 aircraft of all shapes and sizes](#), choose from thousands of [forums and hands-on workshops](#), take in world-class [daily air shows](#) featuring the world's best aerobatic performers, enjoy sensational [evening programming](#) such as concerts and feature films, or peruse what's new from 800 exhibitors—it is all waiting for you when set your destination to Oshkosh this summer.



Here are just a few of the many features and attractions you won't want to miss:

- F-35 makes Oshkosh its first civilian U.S. air show
- Dierks Bentley to headline opening day concert - Presented by Ford Motor Company, with additional support from Cirrus Aircraft
- See the F-22 Demonstration Team fly Wed., Fri., Sat., and Sun.
- World's largest gathering of warbirds
- Salute to Veterans, on Friday, July 24, featuring Gary Sinise and the Lt. Dan Band
- Rare Mosquito fighter/bomber added to Warbird lineup
- Airbus A350 flight test aircraft set for demonstrations
- Rutan Legacy Day activities Tuesday, July 21
- Massive B-52 to land in Oshkosh
- More than 10,000 airplanes and 2,500 showplanes
- Peruse what's new with more than 800 exhibitors
- Valdez STOL demonstrations return
- Celebrate anniversary gatherings of the Pitts, Ercoupes, Stinsons, and VariEze
- Technology and Innovations: 30-foot drone cage
- Camping - Join 40,000 of your closest friends
- World-class air shows - Sponsored by Rockwell Collins
- Concerts, movies, and informative programs

***Don't miss the World's Greatest Aviation Celebration!***



## A WEEKEND FULL OF EVENTS!

- ✚ FREE Afternoon air shows Saturday and Sunday, featuring top performers from across the country
- ✚ FREE Night air show Saturday, a concert by The Nadas and fireworks
- ✚ Fly-in breakfast Sunday
- ✚ P-51 Mustang and New Standard Biplane Rides
- ✚ Activities for kids of all ages
- ✚ For more information, check out our website!

MASON CITY MUNICIPAL AIRPORT

### SATURDAY, JULY 25TH

- 2:00PM - Gates Open
- 4:30PM - Day Air Show
- 7:30PM - The Nadas Concert
- 8:30PM - Night Air Show
- Fireworks to Finish off the Evening!

### SUNDAY, JULY 26TH

- 7:00AM - Fly In Breakfast
- 12:00PM - Day Air Show

## FEATURING

**Matt Younkin** - Twin Beech 18

**Julie Clark** - T-34 Mentor

**Mike Gallaway** - Extra 300

**The Vanguard Squadron** - RV-3s

**The Texas Flying Legends** - Various Warbirds

**Erik Edgren** - Clipped Wing Taylorcraft

A Concert From - **The NADAS**

**And More!**



# WWW.MCWAIRSHOW.COM

## ***Tech Notes -***

# ***Smoke and Mirrors - Part 1***

***by Mike Lewis***

***“...even a 12 volt battery will cause gasping and heart palpitations...”***

***“...the purpose of which is to provide a magnetic field...”***

Probably most of today's homebuilt aircraft will have some form of electrical system. I thought I'd share a few of my experiences with electrical systems from the two airplanes I built.

First, we should have a basic understanding of how electrical devices work. All electrical devices work off of smoke. If we install them incorrectly or overload them, all the smoke escapes and they will no longer function. Right?

One of the decision points may start with the engine you have selected. Suppose you got a bargain engine that came out of a Cessna. So you now have an engine with a 24 volt alternator and starter. Do you really want a 24 volt system? Have you priced a 24 volt battery lately! Yes, I know, even a 12 volt battery will cause gasping and heart palpitations, but a 24 volt is about twice as much. For the extra cost of a 24 volt battery, you can just about pay for a newer, lighter, 12 volt alternator. Your next battery change will pay for a light-weight starter. That cost premium for a 24 volt system applies to many other of your devices too. In the homebuilt world, I cannot see any advantage for a 24 volt system.

Since I mentioned batteries, maybe there is a word or two due there. Probably most of

the certified aircraft (in our weight class) use a lead acid battery somewhat similar to an automotive battery. These are vented. If you plan to use that type of battery, you will need a battery box (something non-corrosive like fiberglass). For safety reasons, that battery box must be vented. That type of battery, if overcharged, will produce an explosive gas mixture, thus vent the gas overboard before it collects.

Some of the newer (at least it's newer to those of us baby boomers!) homebuilts are using non vented batteries. In my RV-4 I used a Concord RG35-A. These are sealed batteries known as VRLA (valve regulated lead acid). Warren is using an Odyssey battery in his RV-6 which I believe is a similar type. Some years ago I had heard of several people using gel cell batteries with rather poor success. The gel cells are also a sealed battery with a thickening agent in the electrolyte. They apparently have somewhat different charging characteristics which are not very conducive to aircraft use.

Next you need a charging system. In today's world that will probably be an alternator. The alternator will typically have three terminals. One terminal will be a ground which may in fact be the case.

There will also be a terminal normally labeled F which is the field winding. The third connection is the power output which is normally labeled B.

An alternator (or generator) has a wire winding, the purpose of which is to provide a magnetic field for the armature (rotor) to pass through and thereby generate an electrical current. This field must be energized. The field current is provided by the battery through the master relay which is controlled by a master switch or a battery and alternator switch.

The positive terminal of the battery is connected to a common conductor called the bus through a master relay. Once the engine is running and the alternator is producing current, it is also connected to the bus. Power is then routed to a voltage regulator and on to the field windings of the alternator. The voltage regulator's job is to maintain a system voltage of about 14.4 volts. It does this by adjusting voltage to that field winding as required.

I'll continue this discussion next month with a schematic of the electrical system I used on my RV-4.



# 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



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looking to buy,

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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**

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