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# EAA Chapter 569 Newsletter

Lincoln, NE



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## Meeting Announcement

**Date:** Tuesday, February 6<sup>th</sup>

**Time:** 7:30pm

**Program:** John Schwery

John will share with us his experience of building and flying a Van's RV-10.

**Place:** Duncan Aviation Engine Shop  
5000 NW 44<sup>th</sup> St – Lincoln, NE



**President's  
Message  
Harold Bickford**

In EAA we talk about learning, building and flying. In December Edi and I had the opportunity to learn and build on the EAA AirCam project at Oshkosh. Come AirVenture 2018 and the next One Week Wonder project will be an RV-12. Add that to ongoing projects and there is no lack of the learn, build portion of the EAA motto.

In January we took the flying part in a different direction with flight instruction in motorgliders, specifically Diamond HK-36s in both turbo and non-turbo forms. This was done at the Sky King Soaring school in Payson, AZ under the tutelage of Russ Husted who is also the proprietor.

Since the HK-36 is a self launch motorglider many more approaches and landings (flights) are possible than is the case with winch or aerotow

launching. This frequency of flight is really useful in a training scenario.

That being said the HK-36's 53.5 foot wings bring in a whole new dimension of adverse yaw coupled with lower roll rates compared to the smaller span wings we are accustomed too. It is a truism that all airplanes are different and the HK-36 is different still. Mastery in a week? In a word, no, but improvement, yes. Another aspect of motorglider flying (and gliders) is the use of spoilers to control descent as every landing is either at idle thrust or engine off. Thus, every landing is an accuracy landing (unless so hopeless that a go-around is necessary). Another interesting part of glider flying is that after about 30 degrees of bank elevator authority is such that a stall won't happen. Additionally, in chasing thermals a bank of about 45 degrees is normal. Simultaneously in that regime a glider is aerodynamically clean enough that it is not hard to overbank and end up in a falling steep turn which is overcome with opposite bank. That is easy enough to explain while the first turns are a bit more exciting! One advantage of this performance is that at 250' agl it is entirely possible in the Diamond to return to the runway and land with an abbreviated pattern.

Attitude (pitch) control is very important as each V speed represents a particular angle of attack with tight tolerances and performance standards. In the case of the Diamond Vx is 52Kts, Vy is 59Kts and best L/D is 57Kts. The approach in still air is flown at 60Kts. Add in a sight picture which is foreign to most airplanes and pitch changes (glide angle)

(continued on page 2)

due to spoiler control along with the stick in one hand and spoiler handle in the other and varying degrees of sink/lift over terrain.....are we getting busy? Also, don't forget to add in half the headwind component to flying speeds for best glide. Above all ALWAYS stay within gliding distance of a landing site (preferably an air/glider port) and practice upwind of the field! Simply put this is fun, interesting and challenging flying. There will be more flying in the Diamond later this year.

So what qualifies as a motorglider? Derived from JAR-22 (European standards and adopted by FAA) basic criteria are: two seats maximum, max speed of 120Kts. (power), max weight of 1874 lbs.(550kg) and span squared multiplied by .62 for weight determination.

As an example, the Sonex Xenos is listed at 1250 lbs gross. The span is just shy of 45 feet, so 45 squared times .62 equals 1255.5 lbs. We could also divide weight by .62 and solve for the square root of the quotient and define the span requirement. Motorgliders can have retracting gear and constant speed /feathering propellers. Equipment can also include oxygen systems as flight above 11,500 feet is not uncommon. Flying higher into class A airspace is possible though going above the class A floor of FL180 requires a clearance and/or a wave window designation of a geographic area plus transponder (code 1200 engine on, 1202 engine off). In this area our example Xenos has a

calculated service ceiling of 29,000 ft. so add oxygen!

As referenced in 14 CFR 61.109(f) requirements for a glider add-on rating for a private certificate (or higher rating) are:

- 40 hours flight time in heavier than air aircraft
- 3 hours flight time in a glider
- 10 solo flights in a glider (this means take-off, circuit and land, minimum)
- 3 training flights with an authorized instructor preparing for practical test within two months of the practical test date

Thanks again to our fly-in crew. Anytime a gathering of a hundred people or so and 20 planes occur it is certainly a success. Thanks too for when the crowds are smaller and wx keeps planes on the ground.

We can talk more about glider/motorglider flying at our next meeting on February 6, Duncan MPI shop at 7:30 pm. We will also have a presentation on a Van's project so the learn, build, fly portion will be in full force! We look forward to getting together. Also, why not bring someone new? Perhaps they just need a bit of encouragement to get involved.

Harold Bickford,  
Chapter President

## Get your order in!

Perhaps you read about this in PIREPs. You can now show your interest in aviation by sporting a Fly Nebraska license plate. But before you see license plates like the one below around, there must be 250 prepaid orders first. The application [can be found here](#). If 250 prepaid applications have not been received, your check and application will be returned to you. They are planning to take orders just a few more weeks. Mail the application along with a check for \$70 made out to the Nebraska Ninety-Nines to:

The 99's  
c/o NE Department of Aeronautics  
PO Box 82088  
Lincoln, NE 68501

Thanks to the NE Chapter of the Ninety Nines for sponsoring this.

Let's make this happen!



## You say it's your birthday?

Sue Gomon, one of our hard workers on the fly-in breakfast crew, will be celebrating a birthday on February 9<sup>th</sup>. Happy Birthday Sue!

## Carb Heat!

*By Tom Winter*

In 19 years, you might need carb heat once or twice. But when you need it, you really need it!

Today was a lovely sunny day. Sunshine and 50°. I enjoyed a slow flight (30 mph headwind, but I was in no hurry — I'm retired.) I was just enjoying the landscape and taking an occasional picture of the still frozen farm ponds, and I finally landed at Beatrice (Imagine logging an HOUR in a flight from Lincoln to Beatrice.)

After catching up with the latest issue of GAN, lurching on an ice cream and a candy bar and chatting with some transient pilots on their way to Indiana in a King Air, I started north on the BIE's long taxiway.

The engine died. Now I'm used to this — you know, if you don't kill the engine once in a while when taxiing, you're not leaning enough. So I assumed I had just leaned it too much, and thought to get it going again by pushing in the mixture. Nope. Always worked before. Prop stopped anyway. Restarted. Died. I restarted, got it going, and continued on.

A bit rattled, I did a very deliberate mag check. All good. Launched. When I was almost at 2500 feet and starting to level off, the engine got rough and the rpms sagged. Back to full throttle. Slow drop of RPM. I looked for, and settled on, a field, and then I thought of it:

Carb heat!

Pull that sucker! The roughness smoothed out, the sagging of the RPMs slowed, and stabilized at 2400 RPM.

On the ground, I read the ASI Aircraft Icing Safety Advisor where it says this: "At the first indication of carburetor ice, apply full carburetor heat and LEAVE IT ON. The engine may run rougher as the ice melts and goes through it, but it will smooth out again." Yup. That's what I did and that's what it did. Look at the Carb Icing Probability charts, and you see that 50° goes right to the heart of it. I don't know what the dew point was, but next time when I'm getting the AWOS, I will listen for it!

My first flying lesson was December 31, 1998, so this is the beginning of my 20th year in the air. In those years, I have needed carb heat once. But I needed it!

## Minutes of the Club Meeting January 2, 2018

The meeting was called to order at 7:45 PM by President Harold Bickford.

The presentation for the evening was presented by Harold and Edi Bickford and outlined their experience helping to build a new aircraft for use by the EAA.

The build project consists of constructing an Air Cam for the EAA to use as a Young Eagles flight plane and as a photography platform for AirVenture. The plane was affectionately called "The Canoe"

because of the shape of the fuselage. The airplane is propelled by two Rotax 912 engines in a pusher configuration. Some of the PowerPoint slides showed the construction and covering of the wings. The leading and trailing frames are inserted into the wing covering consisting of a fiber bag. The curved ribs are then inserted through the covering to stretch the covering into place,

The Bickfords stayed at the Air Academy lodge during their stay. Joe Engle, one of our past astronauts spoke at the Wright Bros Banquet one of the evenings while they were in Oshkosh.

The Air Cam is estimated to have a price tag of approximately \$200,000.00.

It was noted that the 2018 calendars are available for purchase.

There being no further business, the meeting was adjourned at 8:49 PM.

Respectfully Submitted  
Doug Elting, Secretary, Chapter 569

## Chapter Dues are Due!!!

If you haven't done so yet, please pay your 2018 Chapter dues. You can go to the Chapter website ([www.eaa569.org](http://www.eaa569.org)) and fill out the online form. To get to the form, select Join on the Chapter website home page and follow the instructions on the page. For those members who prefer to fill out the paper form, we have included a copy of the form on page 6.

News from

## EAA Headquarters



### Building on BasicMed's Success

More than 25,000 pilots are now flying under the BasicMed program, which was fully detailed almost exactly one year ago and went into effect on May 1, 2017. The rapid, widespread acceptance of the BasicMed is a clear indication of the program's success as a way to streamline medical certification for thousands of pilots flying recreationally. As more pilots look to take part in this simplified medical certification process, it is worth revisiting what exactly the program is — and what it is not.

BasicMed is an alternate, optional way to satisfy the third-class medical requirement. To participate, pilots must have at least **one medical certificate that was valid on or after July 15, 2006, complete the free online course** offered through either AOPA or Mayo Clinic, and have any **state-licensed physician sign off on a checklist** of aeromedical items. Look for a more detailed review of BasicMed's first year in the upcoming February issue of *EAA Sport Aviation* and visit [www.EAA.org/BasicMed](http://www.EAA.org/BasicMed) for more information.

### B-29 Doc Making Another House Call at Oshkosh

One of the stellar moments of EAA AirVenture Oshkosh 2017 was the appearance of the newly restored B-29 *Doc*, which along with the Commemorative Air Force's *FIFI* brought together two flying B-29s in one place for the first time in more than a half-century.

*Doc's* Friends, the Wichita, Kansas, group that led the airplane's restoration, will be bringing the airplane back to Oshkosh in 2018 as part of [its schedule](#) of air show appearances. The B-29 is currently undergoing routine winter maintenance at its home in Wichita.

The appearance of *Doc* at Oshkosh last summer was an emotional one for attendees and the *Doc's* Friends crew, which made an Oshkosh trip a priority upon completing the restoration. The two-ship flight with *FIFI* that occurred several times during AirVenture week, celebrating the 70th anniversary of the U.S. Air Force, became one of the most "photo worthy" moments of the 2017 fly-in.

"Being part of the flight crew for *Doc* on the Saturday arrival last year was one of the highlights of my flying career," Sean Elliott, EAA's vice president of advocacy and safety, said. "Seeing the excitement it generated for everyone awaiting our appearance was exceptional and I will never forget it. Having *Doc* return for 2018 will be another level of excitement for everyone, those that missed it last

year and even those that witnessed it. It will be a very special event!"

*Doc's* Friends spent dozens of hours on Boeing Plaza with the aircraft, meeting with countless AirVenture attendees and detailing the massive restoration of the World War II-era bomber.

The return of *Doc* is just one of the featured airplanes coming to Oshkosh, which annually features the world's largest annual gathering of warbird aircraft. Advance tickets for AirVenture on July 23-29 are currently [available online](#).

### Now is Time to Move for ADS-B Installation

Joe Norris of EAA's government advocacy team represented our organization at the Equip 2020 meeting in Alexandria, Virginia, where the joint government-industry committee reviewed progress toward meeting the January 1, 2020, mandate for installation of ADS-B "Out" equipment for aircraft that will fly in controlled airspace after that date.

While a growing number of general aviation aircraft owners are making the commitment to install the needed equipment well ahead of the mandated deadline, there is concern regarding a late wave of installations causing delays for aircraft owners who wait until the final year before the deadline date.

"One thing we should all understand — the January 2020 mandate is not moving," said Sean Elliott, EAA's vice president of



advocacy and safety. “The FAA and DOT have been adamant about that for the past three years. There are a finite number of certificated avionics shops and they will become very busy with installations as the deadline nears. Our recommendation is if you plan to fly in the affected airspace and have not installed an ADS-B unit, move toward getting that done as soon as possible.”

EAA has worked hard with the avionics industry to bring prices for basic rule-compliant ADS-B units into an affordable range for the average GA aircraft owner. In addition, EAA has been ensuring that amateur-built aircraft owners and S-LSA owners can install non-TSO'd ADS-B units provided they can be shown to meet the performance standards of the rule.

“This isn't a situation where you can wait until the last minute, hoping that you can save a couple of dollars or that the mandate will be pushed back. That's not going to happen,” Elliott said. “We also must understand this is part of a larger picture that includes the FAA's effort to keep a schedule of airspace and air traffic modernization mandated by Congress. A significant level of noncompliance to the ADS-B mandate will give those who back ATC privatization more ammunition to use in trying to hand control of the airspace system to the airlines.”

For more information on ADS-B installation and whether the mandate affects how and where you fly, go to the FAA's [Equip ADS-B website](#).

## Classifieds

### For Sale

- 1997 Buckeye Dream Machine Powered Parachute
- Quad City Challenger II
- 1971 Bellanca Super Viking
- Zenith CH701 (one wing and tail completed)

Contact Stan Marshall, El Dorado, KS  
(316) 321-2272 (leave message)

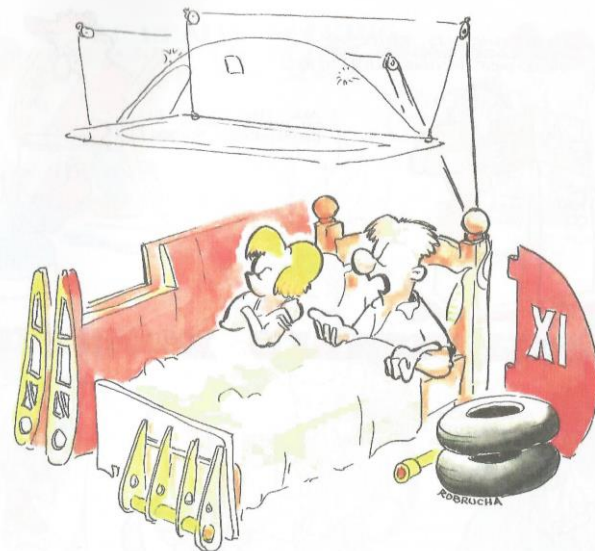
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**Why are you so angry? You always wanted a canopy bed!**

## Events

**York Airport (JYR)**, EAA Chapter 1055 Fly-in breakfast on the 1<sup>st</sup> Saturday of every month. 0800 - 1000. Free will donation.

**Crete Airport (CEK)**, EAA Chapter 569 Fly-in breakfast on the 3<sup>rd</sup> Saturday of every month. 0800 - 1000.

### **EAA Chapter 569 Membership / 2018 Renewal Form**

**Include your \$20 check made out to EAA Chapter 569**

Mail to: Mark Werth, 2110 Spring Meadow Circle, Lincoln, NE 68521

New Registration or Renewal:\_\_\_\_\_

Full Name:\_\_\_\_\_

Address:\_\_\_\_\_

City:\_\_\_\_\_ State:\_\_\_\_\_ Zip Code:\_\_\_\_\_

Phone:\_\_\_\_\_ Email:\_\_\_\_\_

EAA Number:\_\_\_\_\_

Would you like to receive the monthly Chapter Newsletter via email? Yes No

Experience With (wood, metal, welding, composite, fabric, electronics, paint)?

Flying and/or Building Information:

Other comments:

John Cox  
2279 County Road 2425  
DeWitt, Nebraska 68541-2518



# Fly Nebraska Aviation License Plate Application



## Application for Organizational License Plates

§60-3,104.02

This application is included with an Application for Creation of a Specialty License Plate Design for an Organization.

### Applicant Information:

Registered Owner's Name	Email Address	Daytime Phone
Address		
City	State	Zip

**IMPORTANT:** Applicant's name must appear on the Nebraska Certificate of Title or, in the event the vehicle is leased or non-resident military, the registration of the vehicle. Non-resident military must include a copy of their registration with this application.

**Vehicle Information:** ☐ Motor Vehicle ☐ Motorcycle/Autocycle ☐ Trailer ☐ Semitrailer ☐ Cabin Trailer

VIN	Make	Year
Title Number	County of Registration	Co #
Is vehicle leased? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Lessor		

Motor vehicles, motorcycles/autocycles, trailers, semitrailers and cabin trailers are eligible for an Organizational License Plate.

**Fee: \$70.00**

Name of Organizational Plate design for which this application is submitted:

**Fly Nebraska Aviation License Plate**

*Note: Plates will not be ordered until the requesting Organization has been certified and the DMV has received the minimum number of prepaid applications required to proceed.*

Date

Signature of Motor Vehicle Owner

This application is submitted by the Organization requesting creation of the plate design, along with the appropriate fee, as part of the Application for Creation of a Specialty Plate Design for an Organization process. Questions may be addressed to:

Nebraska Department of Motor Vehicles  
Driver and Vehicle Records Division  
P.O. Box 94789  
Lincoln, NE 68509-4789  
402.471.3918  
[www.dmv.ne.gov](http://www.dmv.ne.gov)

Please mail completed application and \$70 check to NE Ninety Nines %of  
NE Div. of Aeronautics, PO Box 82088, Lincoln, NE 68501

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