

October 2016



EAA CHAPTER 145

SINCE 1962



**Special Chapter Meeting: Saturday, October 8, 2016–6:00pm
Riverview Airport (08C) in the Big Hangar**

CHAPTER MEETING

The EAA Chapter 145 meeting for October will be a cookout and bonfire. We'll be starting at 6pm – in the Big Hangar. The meal will be in the Main Hangar, and then move to the bonfire by the pond. Bring a dish to pass, service, hamburgers, hotdogs & drinks will be provided. If you would like, bring a chair to sit around the fire.



INSIDE THIS ISSUE

- 1 Campfire
- 1 Prez Corner
- 3 EFIS App
- 4 IMU / AHRS
- 5 Upcoming Events

PRESIDENT'S CORNER

Chapter members are looking forward to some of the annual activities at Riverview, such as the bonfire in this month and the Christmas brunch in December. As the weather patterns change this time of year, we have more time to work on projects and less time flying. I'll try to get around and visit the various projects and include a report in the following news letters.

We are also looking forward to enjoying other aviation activities; such as a trip to the USAF Museum on Saturday October 15. Herb has organized this day trip to Dayton with the idea of flying to Moraine Airpark (I73) for the day. You could also drive, but the 600mile round trip would make for a long day. See attached flyer for details.

Let me know if you have any other activities that would be of interest to you.
Cheers, Dick

YOUNG EAGLES

There are a couple of small Young Eagle activates being planned for this fall. A Boy Scout Troupe (5) from Big Rapids and a family (2) from Jenison. These will be done as individual YE flights, not as a rally. Contact me if you know of any young people who would like to be introduced to aviation. Dick, EAA145 Y.E. coordinator

PAINT BOOTH

The paint booth is finished and ready for duty.

CHAPTER 145 POLO SHIRTS

We are now accepting orders for Polo shirts with the Chapter 145 logo on them. Short sleeve style are \$26.00 (in light blue color) or long sleeve for \$34.00 (in white color). Caps in royal blue are also available for \$15 each. A sign-up sheet will be at our next meeting, or see Bob Swietek for more information.

NAME THAT PLANE

The airplane on the right has a very famous, and at first, very underrated cousin. It was developed to be a night fighter and long range over-water fighter.



PROJECT OF THE MONTH

Chris Gustaf and friends
Are refurbishing a
Cessna 150

EAA145 HANGAR

- Herb Harney/Bob Kawa are working on the air intake of his RV-8.
- Bob Kawaka is working on repairing the flaps of Nick's RV-10.
- The Chapter now has a form for members to fill out if they want to put a project in the hangar.
- Hangar space is available for anyone working on a project. Contact Dick Foster for details.



FREE EFIS APP



A-EFIS free

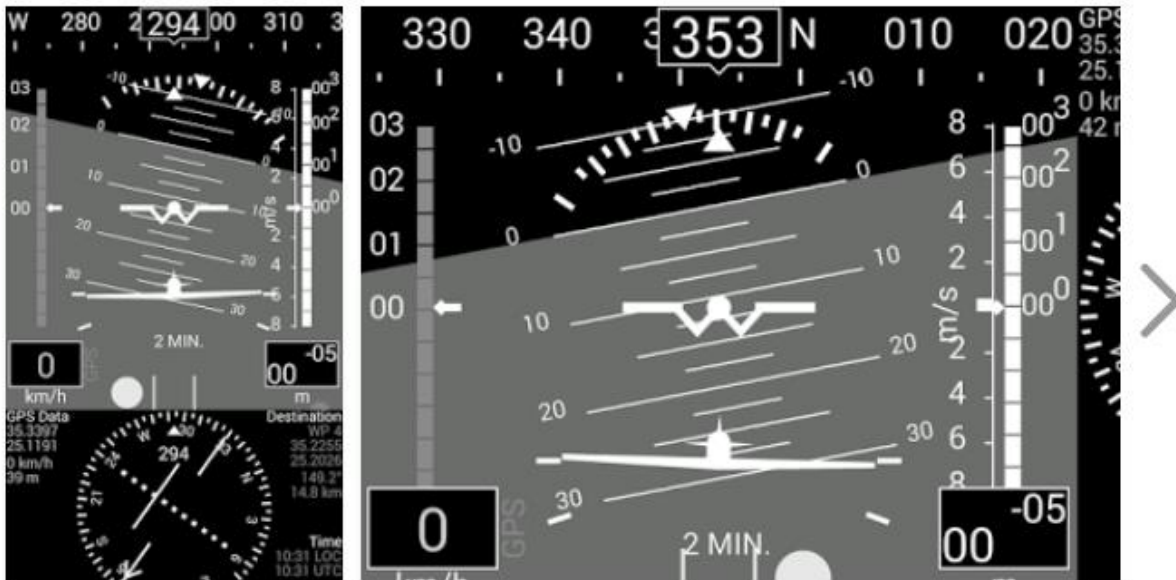
Talos Avionics Tools

★★★★★ 25

Everyone

Add to Wishlist

Install



A-EFIS: an Electronic Flight Information System for aircrafts, running right on IOS and Android devices, using their native gyroscopes, accelerometers, magnetometers and GPS sensors. No external sensors needed for reliable operation. The optimal and FREE back-up solution for any aircraft. This free version has all features of A-EFIS, without any limitation of time or functionality. The only limitation is the interface which is in black and white.

Please note that in order for A-EFIS to work correctly, your device must have a 3-axes gyroscope, a 3-axes accelerometer, a 3-axes magnetometer and a GPS receiver.

Additionally, in order for A-EFIS to provide correct altitude indication, your device needs to have a pressure sensor as well.

If barometric pressure sensor is not available, GPS altitude measurements are used.

For more information, see

<http://www.talosavionics.com/a-efis-free/>

A full color version of the App is also available for under \$60.



IF.....

If your display device doesn't have the proper sensors, then you'll need an inertial measurement unit (IMU)..... and spend extra money (around \$400 - \$500) For example, see: <http://x-io.co.uk/ngimu/> & <https://www.youtube.com/watch?v=gUBjpF7rnww>



On-board sensors include a triple-axis gyroscope, accelerometer, and magnetometer, as well as a barometric pressure sensor and humidity sensor. An on-board AHRS sensor fusion algorithm combines inertial and magnetic measurements to provide a drift-free measurement of orientation relative to the Earth. Each device is individually calibrated using robotic equipment to achieve the specified accuracy. Additional, external sensors, such as force or bend sensors, can be connected to the 8-channel analogue input interface. Serial data sources, such as GPS modules, can be connected to the auxiliary serial interface.

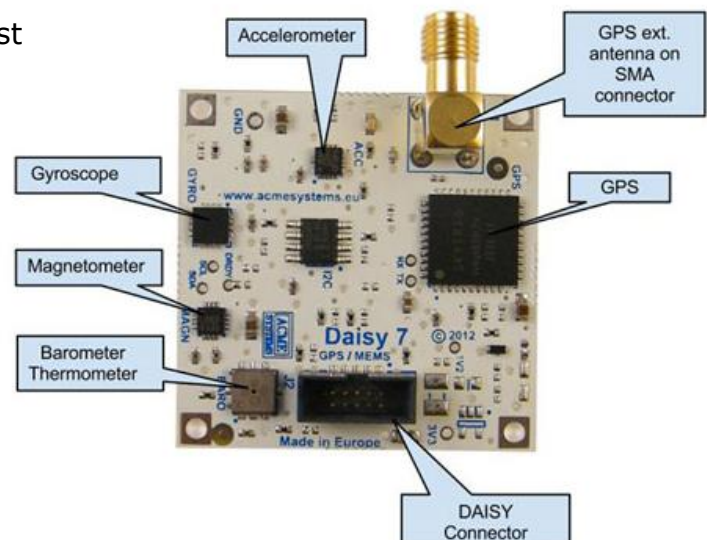
Real-time communication is achieved via USB, Wi-Fi, or serial/RS-232. Data may also be logged to an on-board micro SD card. The NGIMU uses the popular OSC communication protocol and so is immediately compatible with many software applications and straight forward to integrate with custom applications with libraries available for most programming languages. The use of this protocol and the range of communication interfaces make the NGIMU compatible with just about any platform, from an Arduino to an i-phone.

There are many inertial measurement units (IMU) out there, and it's a mystery to me how they integrate with your particular output device, so I would do research and directly contact the manufacturer to find out whether the display you are using is compatible with the IMU/AHRS. For example, the iLevel Sport is \$795 (not incl. display), the GRT Avionics Mini EFIS with integral display is around \$1200, MGL Avionics mini-EFIS has an integral display and is around \$1300.

And then there are DIY solutions, which offer just the circuit board, or plug into an Arduino. These solutions are used in the emerging field of drones. This area feels very similar to the Stratux ADS-B builds we did earlier in the year. As in all things, you can save money by doing it yourself, but it takes more research and trial and error....

For examples, see:

<https://www.youtube.com/watch?v=2B9w0PcjbJA>
<https://www.sparkfun.com/products/retired/9623>
<https://www.youtube.com/watch?v=WuHRCnpscDQ>
https://www.youtube.com/watch?v=e__7bpqa8sE





EAA Chapter 145 website: www.145.eeachapter.org

EAA National website: www.eaa.org

Riverview Facebook: www.facebook.com/pages/Riverview-Airport/115468211816419

DUES ARE NOW BEING COLLECTED

Dues of \$35.00 are payable to "EAA CHAPTER 145" and can be mailed to Bob Swietek at the address listed at the end of the newsletter or brought to the monthly chapter meeting. If you need to make any updates on your contact information, please include the tear-off slip for member data update with your payment.

UPCOMING EVENTS

- | | | |
|---------------|--------------------------------|--|
| Oct 1-2 | Indianapolis, IN | RedBull Air Races www.redbullairrace.com |
| Oct 1-2 | USAF Museum, Ohio | WWI Aircraft Rendezvous on museum grounds |
| Oct 8 | Riverview Airport (08C) | meeting – Riverview Bonfire |
| Oct 15 | USAF Museum, Ohio | Riverview Pilots Trip to USAF Museum |
| Nov 12 | Riverview Airport (08C) | meeting – Aviation Weather, Kyle Underwood |
| Dec 10 | Riverview Airport (08C) | meeting – Riverview Christmas Brunch |

If you know of events that should be on the event calendar, please e-mail them to me

If you would like to be on the e-mail list for meeting and event reminders, or if you would like to receive the newsletter electronically, which is full color and delivered days before the print version... please send your e-mail address to: randall.houtman@dematic.com

The 2015 Officers for EAA145:

President, Dick Foster
(538-8849 c172foster@gmail.com)

Vice President, Bruce Whitman
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6962 Bridgewater Dr. SE
Grand Rapids, MI 49546
(676-2951 airdale69@aol.com)

Newsletter Editor, Randy Houtman
(913-5908 randall.houtman@dematic.com)

Treasurer's Report: (As of Oct 2rd)

Liabilities: \$3500.00
Cash: \$97.62 Checking: \$136.69
Savings: \$5357.57 Total: \$5791.88

Website Editor, Bill Willyard
(wqwillyard@att.net)

EAA CHAPTER 145 MEMBERSHIP APPLICATION / RENEWAL FORM

DUES ARE \$35.00 PER YEAR – JANUARY 1st to DECEMBER 31st

Name _____	Aircraft Owned _____
Co-Pilot / Spouse _____	_____
Address _____	Projects / % Complete _____
City _____	_____
State / Zip _____	Bring this form to the next meeting or mail to:
e-mail address _____	EAA Chapter 145 Treasurer
Home Phone _____	6962 Bridgewater Dr. SE
Work Phone _____	Grand Rapids, MI, 49546
National Membership # _____	

Riverview Airport Pilots and Friends



Day trip to Dayton, Ohio
Saturday
October 15, 2016
Airport: I73 Moraine Airpark



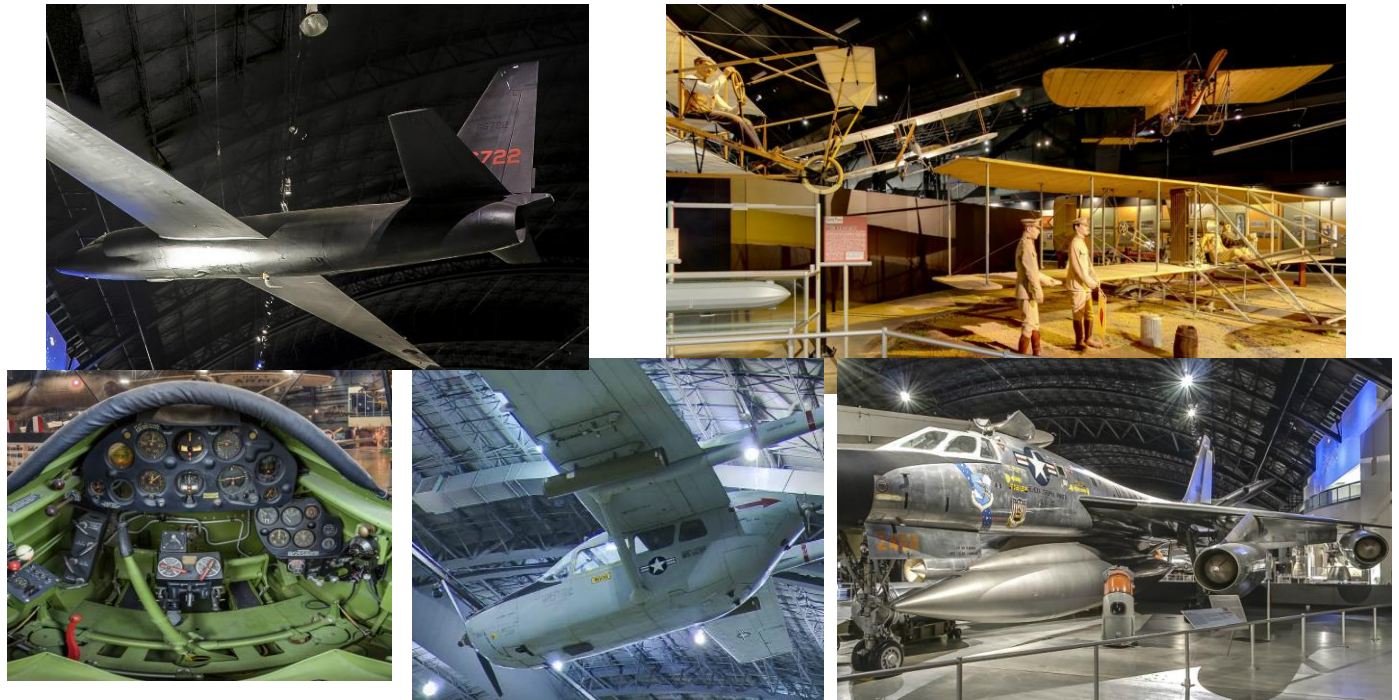
National Museum of the US Air Force

Fourth Building is Now Open:

Visitors from around the world can once again walk in the footsteps of presidents, astronauts, test pilots and those brought out of captivity as the National Museum of the U.S. Air Force opens its fourth building on June 8.

The new \$40.8 million, 224,000 square foot fourth building, which was privately financed by the Air Force Museum Foundation, will house four galleries – Presidential, Research and Development, Space and Global Reach, along with three science, technology, engineering and mathematics (STEM) Learning Nodes.

*******FREE ADMISSION*******



1. **Fly** – Meet at Moraine Airpark (I73) at about 9 AM and there will be shuttle service to the museum.
2. **Drive** – Museum hours are 9 AM to 5 PM, 1100 Spaatz St., Wright-Patterson AFB Ohio 45433
3. **Hitch** – Who's your friend? Contact them and meet us there

More Information contact Herb Harney – 616-401-3637 / hharney@sbcglobal.net