EAA CHAPTER 93

Madison, Wisconsin

September 2017

Established 1962

In This Issue

- View from an Open Cockpit
- Upcoming Chapter Events
- Young Eagles Rally
- Speaker Pat Weeden
- ADS-B to You!

Young Eagle Rally (see story on page 4)

View from an **Open Cockpit**

Roger Stuckey, President

I need your Help! That is a heck of a way to start my monthly column but it is



true, I do need your help with a complication resulting from our merger. Our chapter has now become too big for our winter meeting space and so the search is on for a larger (free) meeting space that we can reserve November through April. In the past, Chapter 93 used the Fitchburg Library which is the right size for our need. Unfortunately, we can only reserve the meeting room a month in advance and are subject to cancellation for more pressing community or library business. Consequently, the Fitchburg library does not provide us with a consistent, reliable meeting location.

Here is how you can help. Ask around your network of contacts and relationships for ideas on meeting spaces that offer non-profit organizations free meeting space. These could be churches, schools, businesses, party rooms at apartment complexes, community Town Halls, etc. We need a facility capable of seating sixty to eighty people, and ideally (but not necessarily) a meeting room with kitchen facilities so that we can offer coffee and treats.

If you know of a meeting facility that meets our needs, please email me (rogergstuckey@gmail.com) the information so that I can contact the facility manager.

We are a busy, active Chapter! This summer has flown by because of all the flying activities we undertook. Our August Young Eagles Rally flew another fifty-three students with the help of many Chapter 93 volunteers. Our volunteers are Great! In September, we will be taking part in the Middleton Airport Hamburger Social sponsored by the Morey Airplane Company, as a show of appreciation to Rich Morey for his unwavering support of Chapter 93 and EAA. Of course, there are always the many, many weekend fly-in events around us that we are flying off to participate in.

Finally, we have our Annual Chapter Banquet occurring Sunday, October 1, at Rex's InnKeeper in Waunakee (see page 3 for details). A perceived benefit of the merger is a more active, vibrant chapter for our membership. We are seeing this benefit now, and we will continue to see more of it even in the off-season as our new Committees develop and new programs come into being.

Blue skies and tailwinds.

Roger

Chapter President Roger Stuckey

rogergstuckey@gmail.com

Chapter Vice President Rob Tweed *rbtweed@charter.net*

······ Chapter 93 Officers ······

Chapter Treasurer Jim Lins jwlins@facstaff.wisc.edu

Chapter Secretary Keith Doyon keith@keithdoyon.com

Newsletter Staff

Al Kurth, Editor Keith Doyon, Reporter and **Backup Editor** Sandy Hufton, Designer

Please send contributions to: alanekurth@gmail.com

..... Upcoming Chapter Events

September Chapter 93 Meeting Dane County Regional Airport-Truax Field Wednesday, September 20, 2017 6:00 pm – 9:00 pm

Rob Tweed's hangar at Dane County Regional Airport/Truax Field (KMSN) on the South Ramp.

If you are flying in, advise air traffic control that you want to park on the South Ramp.

If you are driving in, navigate to Stoughton Rd. approx. one mile south of the entrance to Wisconsin Aviation. At the intersection of Kinsman Blvd. and Stoughton Rd. (Hwy 51, McDonald's at corner), proceed west on Kinsman Blvd. to Wright St. Turn right on Wright St.

Proceed north on Wright St. to the T junction. Turn right on Mitchell St. to the end. Turn left on Bowman St. and continue to the parking area at the end of Bowman. Someone will be at the restricted access pedestrian gate to allow entry and direct attendees to Rob's hangar.

Note to Visitors: Because of its commercial activities and the presence of active military operations, visitors must observe the airport's security requirements. When allowed access through the pedestrian gate, please stay at all times within the immediate vicinity of Rob Tweed's hangar on the South Ramp. The FEDEX ramp is just east of Rob's hangar; the military ramp is just west of Rob's hangar. Both are off-limits to visitors.

There are always refreshments and good company. **Please bring a dish to pass.** Plan on flying in if you like. Great opportunity to meet 'n' greet with the members of our newly combined Chapter. Spouses/ significant others and guests are welcome. There may even be some members' aircraft available to provide short rides. **Please bring folding chairs or lawn chairs for seating.**

Rob Tweed plans on giving a mini "Composites 101" talk to familiarize our group on various materials and techniques used in building composite aircraft. For those flying in, Dane County Regional Airport/ Truax Field (KMSN) is a Class C airport and often has multiple runways in use.

More information about KMSN can be found at: www.airnav.com/airport/KMSN and the Chicago Sectional Chart.

Hangar Hangouts will be held rain or shine.

Chapter 93 Annual Banquet Sunday, October 1, 2017, 1:00 – 4:00 pm

Rex's Innkeeper, 301 N. Century Avenue, Waunakee

All Chapter 93 members are invited to attend our annual banquet scheduled for Sunday, October 1 from 1:00 to 4:00 p.m. at Rex's Innkeeper in Waunakee. We will enjoy a delicious deluxe buffet with shaved prime rib, turkey, 3 different cheeses, relishes and dip, chicken wings, meatballs, egg rolls, shrimp cocktail, pasta salad and assorted fruit bars for desert.

The cost of the banquet is \$18.00 per person, payable at the door. Attendance is limited to the member plus one guest at this time due to room capacity. An email blast will be sent if more persons can be accommodated. The guest speaker will be Pat Weeden from Kelch Aviation Museum (see page 6).

DETOUR Route for Rex's during Waunakee Century Ave. Construction Project: Coming from Middleton on Hwy Q-take a left on Woodland Dr. then right on Holiday Dr. Follow Holiday Dr. all the way to the end of that street and it takes you straight to Rex's.

Please RSVP by Thursday, Sept. 28. If you have responded to an earlier email from Roger Stuckey regarding the banquet, please respond again in case there has been a change in your circumstances.

Here is the link for the map to Rex's. https://goo.gl/maps/Rx5cCxqxQWn

Note that the Banquet will be the Chapter meeting for October. There will be no separate meeting. Our next regular meeting will be Wednesday, November 15, 2017 at 6:30 pm. Further details to follow.

Another Successful Young Eagles Rally



The weather gods blessed us with a beautiful Saturday morning to fly Young Eagles on August 19 and fifty-three students took advantage of our rally. Volunteers started showing up at 7:30 am to set-up the tents and tables for the day and we were successful in keeping most of the activity outside.

The Young Eagle students were eager and excited to fly and our pilots had some great stories to tell at the end of the day. One story that resonates with us is from Bruce Case who flew a "first flight" with Amelia (named after Amelia Earhart). Bruce commented that they took off and he showed Amelia how the controls work and she flew the plane from after take-off until returning to the pattern at Middleton... in Bruce's words "she is a natural pilot."

As always, the Chapter 93 membership stepped-up with more than twenty-five volunteers to help with coordination and flights. We thank our Young Eagles Coordinator, Christy Beneke for her leadership along with the following volunteers:



Registration — Lanny Smith + Carol Linehan **Ground School** — Tom Huismann

Flight Assignments — Nancy Francke + runners (Mason Mcquire, Ryan — nonmember friend of Mason, Patrice)

Certificates – Joan Forbes + Christy Beneke

Pilots –

Bruce Case
Charles Elson
Rob Golden
Tom James
Terry Kramer

David Lorman Jeff & Patty Plantz Frank Smidler Skot Wiedemann

Flightline Safety & Marshalling – Rob Tweed, Bob Linehan

Membership Sign-up - Keith Doyon

Our last Young Eagles event for 2017 is Saturday, October 7 at the Middleton Airport.



continued on next page ...

Young Eagle Rally (continued)





Young Eagles Planning Meeting









2017 EAA Regional Calendar

Chapter	When	What (Event)	Where	Who (Contact)
-	September 17	Hamburger Social, 11am – 2 pm	Middleton Airport (C29)	Morey Airplane Company (608) 836-1711
-	September 23-30	International Aerobatic Club National Competition	Oshkosh (KOSH)	www.iac.org/us-national-aerobatic-championships-2017
93	October 7	EAA 93 Young Eagles	Middleton Airport (C29)	Christy Stark ccstark55@gmail.com
1414	October 8	Pancake Breakfast & Young Eagle Rides	Poplar Grove, IL (C77)	Dean May (815) 544-0215 deanvmay@frontier.com
-	April 28, 2018	French Toast Breakfast	Oshkosh (KOSH)	frost@fvtc.edu 920-236-6112
-	July 23-29, 2018	EAA AirVenture 2018	Oshkosh (KOSH)	EAA National

Corben Chapter 93 Banquet Speaker to be Patrick Weeden of the Kelch Aviation Museum!

By Keith Doyon

Those members of former Chapter 1389 (now merged into the much-expanded Chapter 93) who were fortunate enough to hear Patrick (Pat) Weeden speak at one of their membership meetings last year will be pleased to hear that Pat will again address them as the Guest Speaker at the **Corben Chapter 93 Banquet** on Sunday, October 1. Pat is the executive director of the fabulous Kelch Museum headquartered at Brodhead Airport (C37). He is a well-spoken, lifetime advocate of antique, grassroots and homebuilt aviation, as truly exemplified at Brodhead.



Alfred and Lois Kelch

Pat grew up around grassroots flying his entire life. For those of you who don't know Pat, he is a scion of the regionally famous Weeden family; his father, Richard "Dick" Weeden has been an A&P in Southern Wisconsin for, I'm not sure how long, but I think Dick might have done the Conditional Inspection on the Wright Flyer before Orville and Wilbur first took it to Kittyhawk. Pat's brother, Mike, is the Chief Instructor pilot for the State of Wisconsin and also an A&P himself. Pat lived throughout the evolution and growth of the Brodhead Airport and is a longtime member of EAA Chapter 431, the Chapter that puts on the Pietenpol and Hatz reunions each year, as well as hosting a major MAAC annual fly-in.

Pat will be speaking a bit on his life growing up on a genuine grassroots airfield, but he will be principally presenting on the **Kelch Aviation Museum**, a premier, and not far fly-out destination (~30 nm from C29) that this Chapter 93 should definitely be considering as one of its first fly-outs when they get organized! (www.kelchmuseum.org).

The Kelch Aviation Museum's mission is

"To establish and operate a museum that celebrates the golden age of aviation and cultivates an appreciation of its powerful impact on science, engineering and design, and humanity's understanding of its own limitless potential."

From its website: "The Kelch Aviation Museum is located at the Brodhead, Wis. Airport. Currently housed in six hangars, the museum contains a unique collection of aircraft from the "Golden Age of Aviation." [This is generally considered to be the revolutionary period between WWI and WWII that was characterized by a progressive change from slow, wood and fabric biplanes to streamlined metal monoplanes.] The museum is currently open by appointment only until we complete our new museum building, but we are able to accommodate most requests."

Al Kelch was an industrialist who organized Kelch Manufacturing in 1956, a company that pioneered a number of industrial plastics innovations,

continued on page 8

ADS-B to You!

by Roger Stuckey

Like many of you, I wondered why I should make my experimental ADS-B Out compliant, given the cost of the equipment and the likelihood that I would ever really need to fly into Class C or better airspace. I made the decision awhile back that I would forego installing ADS-B equipment.

My Acroduster and I have been an "item" since 2014 and I enjoy flying my biplane daily during the summer, and weekly during the winter... yes, I am crazy enough to fly an open cockpit in the winter but my cold limit is 19 degrees. I dress like an arctic explorer, minus the scarf.



Figure 1: iFly 740 GPS

I have noticed over time that my Garmin 296 GPS screen is increasingly hard to read in daylight so earlier this year I began researching a new GPS unit as a replacement. After reviewing a lot of options, I began to narrow my search to the iFly product line (<u>www.iflygps.com</u>). The iFly 740 GPS caught my attention as an all-encompassing, stand-alone unit that gives a larger display than my current 296 while still fitting into my restricted cockpit (see Figure 1). This feature-rich unit included ADS-B In capability with an inexpensive (\$149) antenna attachment. This is a simple decision, or so I thought.

I wanted to see the unit in-person so I decided to visit the iFly booth at AirVenture this year for some hands-on time, and to get a feature walk-through with one of the sales representatives. As we stood reviewing the iFly 740, I asked about the ADS-B features which the salesperson gladly showed.

First, we installed the ADS-B In antenna to see traffic in and around KOSH. Afterwards the salesperson showed me an iFly 740 GPS / uAvionix EchoUAT ADS-B In/Out Bundle. *Eyes Wide Open now!* This ADS-B bundle uses the EchoUAT to send ADS-B Out information and the SkyFYX-EXT GPS receiver for ADS-B In information.

www.iflygps.com/STORE/Product/gps-packages/ ifly-740-gps-skyguard-ads-b-bundle

We talked through the installation process and the essential point is this: if you have a Mode C Transponder installed today, the EchoUAT unit will sense the squawk information, acquire the GPS information from the SkyFYX-EXT antenna and send ADS-B Out per the FAA requirements. Furthermore, all ADS-B In traffic displays on the iFly 740 via a WiFi connection between the two units.

The next obvious question is how hard is this to install? Unbelievably Simple! The packaged instructions are very good and the schematic diagrams show each of the installation scenarios: interface with or without EFIS equipment, installation of the Ball-Rod antenna, and electrical wiring. For me, this installation was very simple and basic. I simply needed to install the Ball-Rod antenna (see Figure 2), SkyFYX-EXT GPS antenna (see Figure 3), EchoUAT box (see Figure 4), and run battery/ground to my electrical panel. My actual installation time was less than two hours. After installation, the owner's manual showed me how to program my ADS-B Transmitter with the specifics for my Acroduster and how to upload the data to the unit via WiFi with my smart phone (Android or IOS.)



Figure 2: Ball Rod Antenna

continued on next page

ADS-B to You! (continued)



Figure 3: SkyFYX-EXT Antenna

I made several test flights outside of Class C airspace to confirm that I received ADS-B In data on my GPS. All tested good on these flights. I then flew a transient

Class C flight from Middleton to Watertown and back with Flight Following to test the ADS-B Out function. Once completed, I logged onto the FAA's web site to request a "Public ADS-B Performance Report" (<u>www.faa.gov/nextgen/programs/adsb</u>). I requested the Performance Report online and received an email within 30 minutes of request. The report showed no Red Flag failures of the various parameters measured by the ADS-B system. If you have a Red Flag on your report, then you have a follow-up action item! I had No Red Flags after my transient flight. I am Very Happy!

Two Disclaimers:

One, I am not trying to sell anyone on the iFly 740 GPS although I believe it is an excellent unit. I do advocate that you investigate the uAvionix EchoUAT



Figure 4: EchoUAT Transceiver

and SkyFYX-EXT units (\$1,399) for use in your Experimental airplane. (<u>www.uavionix.com</u>) These units are compatible with a variety of transponders and GPS moving map systems so there is a good chance that all you need to acquire are just the EchoUAT transmitter and SkyFYX GPS receiver. Even better, if you already have ADS-B In capability, then the EchoUAT transmitter (\$999) may be all you need to be compliant.

Two, the uAvionix equipment is for use in Experimental Category aircraft as it is Non-TSO'd and therefore, not certified for production/certified aircraft.

Speaker Pat Weeden (continued)

including the manufacturing process for the ubiquitous orange traffic cone.

The company's success allowed AI to pursue his passion for historic airplanes, boats and automobiles. He collected and restored dozens of aircraft over the years, including many rare examples. Al was also a member of the EAA Antique/Classic division, editor of the division's magazine, *Vintage Airplane*, and co-created the core rules for judging vintage airplanes that are in use to this day.

Upon Al's and Lois' death, their entire collection of vintage aircraft was placed into the Alfred & Lois Kelch Charitable Trust, along with funds to, "... keep the hangars open."

In 2012, trustees created the Alfred & Lois Kelch Aviation Museum. The Kelch Aviation Museum currently owns 12 vintage aircraft and two restored automobiles, with others on long-term loan.

Brodhead Airport, home of the Kelch Museum, was established in 1946, and has become known across the country as one of the best grass airports in the Midwest. Together with EAA Chapter 431, it hosts a number of public events throughout the year, including a three-day gathering of the Midwest Antique Airplane Club (MAAC) each September. Also, the national Pietenpol, Hatz and Bleriot clubs hold a joint three-day fly-in each July.

The airport is recognized for its commitment to demonstrating vintage aircraft, many of which are restored on-site. There are nearly 75 airplanes in various stages of construction, restoration or in active airworthy condition, many from The Golden Age of Aviation.