

Racine EAA Chapter 838
Monthly Newsletter
March 2015 Volume XXVII Issue 3
http://eaa838.org/
Meetings Third Thursday's 7:00 pm
Social at 6:30 pm

Welcome to your EAA Chapter 838 monthly newsletter. I will need your assistance with articles. Please email anything that you would like me to include in a future newsletter to me at newsletter@eaa838.org. There are two articles about LSA (Light Sport Aircraft), one by Sean Dwyer, and another by Roger Blocks. Check them out. We have a new guest author. Steve Myers has written an article about the U-2. He told me that he will write new articles every so often. This is great. Now we need others to do the same.

Please note the article about our famous member, Jim Hantschel on page 4. He made the EAA web site as the February volunteer of the month. Check it out, and congratulate him when you see him.

Dave Finstad has taken over the membership chairman. Do not forget to send in your membership renewal unless you have recently renewed. If you have questions about when your membership expires, please email Dave at membership@eaa838.org.

## President's Corner

Flying season will soon be upon us. March 14th will be the start of our Young Eagles season. We have several groups already signed up so we'll be looking for pilots and help with the program. I sure hope the weather will cooperate.
For most of us, March is the return to flying after a winter hiatus. I always take a couple of days and really go over the plane. I pull every cover and do a 'mini' annual. It gets me back into the rhythm of flying.
We'll again be having our Pancake Breakfast this year. Bob Helland has again volunteered to run the event. More to come on dates and timing. We have also been asked to support the Racine Fireworks on the Fourth of July with the "Parade of Planes". Last year we had 4 airplanes that did the single file flight over the lakefront prior to the fireworks beginning. I think I speak for all that it was a ball doing the flights! Let's see if we can at least double our number of planes this year. You've got plenty of warning!

Blue Skies, Daryl


## Monopoly Night Fun and Games 2015

The seventh annual Monopoly Night, EAA Chapter 838's 2015 Fall Fundraiser will be held on Saturday October $10^{\text {th }}$. Mark this on your calendar so you do not commit yourself to something else. We hope that you can join us this year.

See you then.


## Chapter 838 Young Eagles for 2015

Remember that we have our Young Eagle Rally's the second Saturday each month from March through November. This is a great time for you to inform any relatives, neighbors, or friends that are between the ages of 8 and 17 about Young Eagles.

March 14th will be the first session of the EAA Chapter 8382015 Young Eagles season.


## Aviation Explorer Club Post 5218

This is part of our youth education, and is for co-ed middle school students.
We will be sending out invitations for the 2015 class in spring. If we do not get a sufficient number of young adults, we may not have anything planned this year.

Once again, if you know someone ages 11 to 13, please inform them about the program, and let Ken Sack know.


## Aviation Explorer Post 218

This is another part of our youth education, and is for co-ed high school students.
On February 25th the presenter talked weather and how it affects aviation. It was presented by the fantastic EAA 838 chapter member: Dave Finstad. Many Explorers have met him previously when he has come to talk about his annual ground school that he teaches. It was a great program.

# Volunteer Spotlight: Jim Hantschel, EAA Chapter 838 

http://www.eaa.org/en/eaa/volunteer/articles/02-2015-volunteer-spotlight-jim-hantschel-eaa-chapter-838

Jim Hantschel, EAA 230426, is from Racine, Wisconsin, where he's been a longtime dedicated volunteer to EAA Chapter 838 since it started in the early 1990s. A private pilot since 1982, Jim is also a longtime Young Eagles Pilot with more than 640 flights.

As Chapter 838 grew, there was the challenge of obtaining volunteers. Jim was able to help as the chapter's treasurer for more than 10 years. Jim has also served on the board of directors for the past 18 years and continues to do so. Both Jim and his wife, Barb, help in many areas when needed for the chapter, such as cleaning, fund-raisers, banquets, holiday parties, and much more.

Jim initially became part of the Young Eagles Program by helping with ground support and classroom work. He never found the right opportunity to be a Young Eagles pilot until a Saturday afternoon in 1999. That day, Jim showed up to give ground support, but saw only one pilot for a large number of eager kids to fly for the first time. The one pilot was Sam Johnson, who was the founding force for Young Eagles. That day, Jim began flying kids to help. He also made a promise to help every month going forward at the Young Eagles rallies. Years later, Sam before died of cancer, and he looked Jim in the eye and said, "Keep Young Eagles going." To this day, there is a great crew of pilots, including Jim, and ground support to do as Sam asked. Jim's Young Eagles heroes (other than Sam Johnson) are Warren Levin and Roger Blocks, two long-time pilots at Chapter 838.

Jim's favorite part of the Young Eagles Program is to fly with someone for the first time and see the thrill and excitement in their eyes. It is the most fun part of being a pilot.
"Those are the kids we fly for, and those are the ones who will be the next generation of flyers," he said. "Some of my early Young Eagles are already pilots, flight instructors, aviation military personnel, and Aviation Explorers (who now help teach our ground school)."

When Jim isn't out supporting Chapter 838 and the Young Eagle Flight Program he's working as pharmacist.
He plans to retire in the near future but loves what he does, so is in no hurry.
Jim also enjoys history, and collects historical documents signed by Presidents and signers of the Declaration of Independence. Jim and Barb have a very good time sharing these documents with schoolkids and have even presented to EAA Chapter 838 when speakers were unable to make it to its meetings.


## The Lockheed Skunk Works and the U-2. Looking back Sixty Years

By Steve Myers

In December, 1954, President Eisenhower and CIA Director Allen Dulles jointly directed the Lockheed Skunk Works to proceed with the development of a high altitude intelligence gathering aircraft design designated the Lockheed Model CL-282. Classified "Top Secret-Special Access," the program objective, simply stated, was: Deliver an air vehicle capable of flying high altitude intelligence gathering flights over the Soviet Union.

Rigorous security requirements forced Lockheed to physically--and organizationally--isolate the program, then designated U-2, from the rest of Lockheed-California Company activities. With company chief test pilot Tony LeVier at the controls, the U-2 made its first flight on August 4, 1954, only eight months after contract goahead. Flight test and production progressed rapidly. The first U-2s were accepted by the USAF in 1955. Deployment to Europe followed in mid-1956 and the first intelligence flight over Russia was made on July 4, 1956, only eighteen months after program start. It was a major and historic accomplishment. Photographs from
that first flight were soon on President Eisenhower's desk and signaled a "breakthrough" achievement in the history of U.S. intelligence gathering. Reconnaissance fights followed for almost four more years, each approved by President Eisenhower. Those flights came to an abrupt end on May 1, 1960, when a U-2C, flown by Gary Powers, was shot down by a Soviet missile over the Russian city of Sverdlovsk.

Although no more flights were flown over Russia, the U-2 continued to be a major part of U.S. cold war intelligence gathering activities world-wide. The Cuban "Missile Crisis" was triggered on October 17, 1962 when a U-2C, flown by USAF pilot Major Steve Harper, photographed Russian nuclear missile sites being prepared in Cuba. What followed was an intense U.S. vs Russia confrontation. President Kennedy ordered a blockade--a ring of war ships around Cuba--to prevent the Soviets from bringing in more military supplies. President Kennedy also demanded the removal of all missiles already in Cuba and the destruction of all launch sites. For thirteen days the world held its breath wondering if a nuclear war was going to erupt. Personal negotiations between Kennedy and his Soviet counterpart Nikita Khrushchev forged an agreement. Russia destroyed launch sites and withdrew all its ballistic missile related systems. USAF U-2's verified the day-to-day removal of Soviet "articles of war" and peace was maintained.

In 1966, the Skunk Works submitted a proposal to the Air Force and the CIA for a completely new aircraft, the U-2R. It would be much larger, have longer range, carry a bigger payload, have provisions for better pilot comfort and include a host of other technical improvements. The proposal was approved and construction began immediately. Famed Lockheed test pilot Bill Park flew the first U-2R flight on August 28, 1967. Although the new design performed brilliantly, only twelve U-2R's were built and production was halted in 1968.

In 1979 the U.S. Air Force put the U-2 back into production for an unprecedented third time, but this time there would be no CIA involvement. The new version would be designated as the TR-1. They were very similar to the U-2R but had some new and important mission systems. The first TR-1 flight was flown on August 1, 1981. Thirty-seven were produced. Also delivered were two high altitude research aircraft for NASA, designated ER2s. Although new aircraft production ended in 1989, the U-2R and TR-1 fleets have been continuously updated with new radars, new digital autopilots, glass panel cockpit instrumentation, satellite data links and a host of new and updated sensors. In the 1980's, General Electric won a competition for new U-2 engines with the GE F118, a derivative of the engine used by the B-2 bomber. All fleet aircraft now use the new engines and are designated as $\mathrm{U}-2 \mathrm{~S}$.

The U-2S fleet is home based at Beale AFB, California. Aircraft deployments, usually made by small detachments, continue to "hot spots" all over the world. The future for this remarkable air vehicle remains clouded. In 2013, the USAF and Congress agreed to keep the U-2S's in service for an extended period. In 2014, the USAF reversed its 2013 decision and decided to terminate the program in favor of the unmanned NorthropGrumman Global Hawk. However, because the U-2S has historically outperformed the Global Hawk...and has almost twice the mission reliability of the Global Hawk...Congress has recently determined to keep the U-2S fleet in service for an "indefinite" period. Whatever the U-2S future turns out to be, sometime later this year the U-2 community...and its veterans...will gather to commemorate and celebrate an outstanding accomplishment. The U-2 has been flying in harms way continuously for sixty years. And, after sixty years, it is still the highest flying, single engine, manned aircraft in the world.

## End of LSA (Light Sport Aircraft) in the USA?

I don't know which contributed more to the likely demise of the LSA idea in the USA, Cessna going to China or the effort in Congress to eliminate the 3rd Class Medical requirement for small airplanes. But both had an effect and I'll address each in turn. But first, what is an LSA and why would anybody care?

In 2005 the Sport Pilot License was introduced to help aviation enthusiasts fulfill a passion for flight at a lower cost. Common sense combined with a U.S. driver's license met the medical requirements. Because there was no need for a 3rd Class Medical Certificate, and because flight was limited to daytime VFR, it was a good fit for a pilot (like me) who flies just for fun. While Sport Pilot may be a gateway to aviation, it is not a pathway for someone who wants to make a career of it, due to the limitations in size and type of aircraft, as well as when and where it could be used. In addition to fixed gear and no more than 2 seats, LSA requirements limit take-off weight to a maximum of 1,320 pounds, airspeed to 120 knots, and stall speed to 45 knots max. A cynic might ask if those arbitrary numbers were deliberately selected to exclude aircraft like the C152 or PA28-140. Cessna introduced the C162 Skycatcher, but then abandoned it. Supply Vs. demand and risk Vs. profit were two key issues, and its absurd price tag factored in both.

In addition to imparting a slightly slimy feel, manufacturing the Skycatcher in China conflicted with my notion of affordable and safe. Not only do I question the wisdom of sharing manufacturing technology with a country where industrial piracy is so common, the price tag of $\$ 155,000$ must be compared with that of a used C172 that you can buy for less than $\$ 45,000$. Why go to China for manufacture, if not to reduce cost? Companies usually go there to make low technology items that require a lot of cheap manual labor. Was the Skycatcher really that 'low-tech' and labor intensive? Was Wichita so expensive, or were there other problems? Lots of questions to be sure, but the slimy feel persists nevertheless.

Unlike airplanes, Barbie Dolls and underwear are low tech. Binding underpants - while uncomfortable - are rarely life-threatening. Bottom line, while I might accept a Chinese made product with a Fruit of the Loom label, I would be less inclined to do so with Cessna or Piper in the product name. China's record in manufacturing is suspect, even for children's products. "Quality Control" seems to be more "What can we get away with?" rather than "Have we delivered a good product?" A vivid example that comes to mind was the adulteration of infant formula with melamine to make it meet a specification for protein. 54,000 babies were hospitalized and several died as a result, but the poorly designed specification and the production quota were met. Another example was Chinese made crayons sold in the USA that contained heavy metal salts. They all had to be recalled. While you might never suck on a crayon, children do, and young children are the target market for crayons. In that case, having no specification was not enough.

Speaking of 'target markets', what was the target for the Skycatcher? Its price tag was more in the range of rich old guys than young pilots. But why would old guys be interested, inasmuch as it is now a buyer's market for used Pipers and Cessnas built in the 1960-1980 timeframe. Most of them can carry more people, and even heavier people. Wing loading and roominess in the much lighter LSA can be an issue. Not only do older guys tend to be heavier (I like to say 'more able-bodied'), I found climbing into Roger Block's C162 to be like trying to fold a bowling ball. The Skycatcher is cute, dainty even, but it's not for me.

Back to the proposed elimination of the 3rd Class Medical for small planes. I'll bet that many Skycatcher sales were to older pilots who wanted to continue flying without having to run the Oklahoma City 3rd Class Medical gauntlet. I will further bet that sales took a nose-dive after that proposal was announced.

It is not all doom \& gloom. There are alternatives to the C162 on the market, and Rotax is doing well globally. Some good has come out of the Sport Pilot/LSA experiment. Several years of recorded flying make the case for eliminating the 3rd Class Medical. Not one accident occurred because of the 'Driver's License medical'. If the current proposal goes through Congress, 100,000 additional aircraft will meet the exemption, and my 50 years old Cherokee N4500R will be more valuable. What's not to like? There is life in the old bird yet, assuming the FAA doesn't kill it with ADS-B in 2020. I'll address that next month.

It's been a couple of years that I've flown exclusively Light Sport Aircraft, or LSA and most of the time it has been in my Cessna 162 LSA. We have flown the little airplane to the gulf coast and to destinations in several Midwest states. These enjoyable adventures are flight planed for two to three hour hops at most. It flies a shade faster than my Cessna 172. Smooth riding, handsome and a fuel-efficient machine.

My brief LSA synopsis includes a simple to fly, 1320 pound fixed wing takeoff gross, 45-knot Calibrated Air Speed (CAS) max stall, 120-knot CAS max cruise, two seat maximum aircraft. New LSA are built to ASTM (American Society of Testing Materials) Tech Committee Standards. Experimental, kit built, and existing certificated factory built aircraft meeting 14CFR the Code of Federal Regulation for Aeronautics that meet LSA weight and stall parameters would be presumably acceptable. LSA hardware specifics are considerable: both FAA and ASTM publish comparable information.

Cessna designed their 162 as a mostly Aluminum alloy vehicle with glass fiber over the engine for less frontal drag. Say what you want: an Aluminum airplane structure is of known strength. Every component tested prior to departing the mill. All fasteners, fixtures and assembly methods are similarly tested, understood and finally, Cessna tested the final structure's strength, aging and flight characteristics. It is tough to conceive that an untested vehicle assembly would behave as safely.

Fiberglass structures unless manufactured in tightly controlled atmospheres, with tightly controlled, repetitive processes and materials are likely to be highly variable in strength, weight and durability. Further, fiber machines are generally must be hangared lest they 'sun' age rapidly. LSA requires day VFR only; hence, fuselage and critical wing-tops are subjected to direct 'radiation during every flight'. Aluminum clearly wins in my simple play book.

LSA rules also extend to the pilots. They must fly daytime VFR at less than 10,000 feet in E and G airspace (and B, C and D airspace with appropriate training). Three miles visibility and visual ground contact are required. No night flight, nor Class A Airspace, nor compensation nor business flight is allowed. One nimble, generally lightweight passenger is allowed. Arthritis and flexibility issues might discourage either pilot or passenger due to door, seat or cockpit dimensions.

To be clear, my flying these past two years has been without a $3^{\text {rd }}$ class medical. I've just yesterday departed my own physician's office: have regular checkups, am fit physically, mentally and free of the displeasures of numerous failings to include unruly hair, halitosis, body odor and gas. Not that the latter doesn't bring an occasional joy to young men. Be young at heart if not in age.

## Welcome New Chapter Members

New in Feburary 2015
Michael Haubrich
James Rasmussen
Tony Schloer

## Monthly Meetings

Board Meetings: Second Wednesdays 7:00 pm
Chapter Meeting: Third Thursdays
Social 6:30 pm
Meeting 7:00 pm
Shop Night Every Monday 7:00 pm
Explorer Post 218 Second Thursdays 7:00 pm and Fourth Thursdays 7:00 pm
Young Eagles Second Saturday 9:00 am (March - November)

## Upcoming Meetings \& Speakers

Mar 19 ${ }^{\text {th }} \quad$ Chris Forncrook of Flight For Life will do a presentation on the aircraft and operations of Flight For Life, our region's medevac provider.

Apr $16^{\text {th }} \quad$ The speaker will be Jim O'Connor who will do a presentation on Drones, their history since the 1700 's and current issues with their increasing numbers in the sky.

May $21^{\text {st }} \quad$ The presenter will be Doug Tomas who will do a presentation on his great uncle's B-24 Bomber (Ready, Willing \& Able) crew in WWII. I will forward his response to my request with attachments to you in a separate e-mail for your information. Looks very interesting. Doug is a lifetime EAA member and has done this presentation for other chapters.

PAST: on Feb 19 ${ }^{\text {th }}$, Peter Bianco and Larry Stys of the local CAP unit talked to us. The topic was the interception in Restricted Airspace - What to do and not to do. Peter and Larry have been involved in several practice intercepts with the CAP and USAF and they showed and discussed what happens if you find yourself flying in restricted airspace. They also talked about their work in the CAP unit.

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