



The Beacon

The newsletter of Chapter 54
Lake Elmo, Minn.

FEBRUARY 2015

February 2015

NEXT MONTH'S PROGRAM WILL BE ON

MONDAY March 9, 2015

- **SOCIAL HOUR STARTING AT 7:00PM.**
- **Meeting AT 7:30 PM, CHAPTER HOUSE, ENTRANCE B, LAKE ELMO AIRPORT 21D.**
- **AT THE NEXT CHAPTER MEETING:**



INSIDE THIS ISSUE:

| | |
|--------------------------------------|----------|
| JOHNSON HIGH SCHOOL AEROSPACE | 1 |
| GLIDER SEMINAR | 2 |
| HYBRID PLANES AND ELECTRIC | 3 |
| PRESIDENTS MESSAGE | 5 |
| WOMEN SOAR | 6 |



Johnson High School Aero Space Program by Scott Shafer

I wanted to reach out to you and your EAA Chapter at Lake Elmo to for a special request as well as start a conversation of how your Chapter could greatly enhance the learning of my students at Johnson High School.

First, let me explain who I am and what I do. A number of years ago, Johnson High School began the transformation of becoming an Aerospace and Engineering magnet school. It follows suit with the Farnworth elementary and middle school aerospace emphasis that has been hugely successful in St. Paul. The program made a lot of progress in Engineering and have partnerships with MIT and 3M. Our engineering students learn CAD and design items that can be



printed on our four 3D printers.

Though engineering has really taken great steps, the aerospace part of the program lacked behind - providing only a few classes in Aviation. This year it took a giant leap with the completion of the multimillion dollar flight simulator lab. I was hired this summer to teach students how to fly in this lab. I am a Physics and Earth/Space Science teacher and multi-engine rated pilot of 20 years. I taught and grew Aviation at Coon Rapids High School for four years as well.

Teaching students to fly in these very high tech simulators (an upgrade to the simulators see at Aces at the Mall of America). I have 7 simulators in my classroom as well as a central ATC center which manages the flights. Students have not only learned how to take off, land, navigate in a

SAVE THE DATE for DAD 2015!

Come out to the Anoka County Airport in Blaine on May 30th & 31st to celebrate the many aspects of aviation. Enjoy numerous aviation exhibitors, aircraft & helicopter rides, food booths and more! On display will be general and corporate aircraft, experimental and homebuilt, WWII fighters, trainers and bombers along with vintage and modern military. Those interested in a career in aviation, can stop by the aviation education booths, see flying demonstrations, and kid's activities. Meet our many veterans, see our military history display area. A Pancake Breakfast & Lunch to be served both days. A 1940's evening Hangar Dance with a 15 piece swing band held Saturday night.

FAA Wings Glider Seminar

On the sunny cold Saturday morning of January 17, 2015, EAA 54 hosted the FAA Wings accredited safety seminar, "Powered Aircraft Cohabiting with Gliders". Redwing Soaring Association member Paul Campobasso, CFGI, was the presenter. Paul did a great job of describing why glider pilots love to soar, how gliders are launched by tow planes and winches, and what powered aircraft pilots should expect when flying near or into airports with glider operations.

Nineteen people attended, including eight Tailwinds Flying Club members. This seminar got started as the Tailwinds winter safety seminar. The club saw the opportunity to open this up to the local aviation community which would require more space. Our clubhouse served its purpose well that day, and Paul infected a few more aviators with the soaring bug. John Renwick was bitten last year and is now soaring with RWSA. John Schmidt and Barry Dayton are RWSA tow pilots.



Forget hybrid cars, hybrid airplanes are the next big thing

Researchers from Cambridge University have teamed up with Boeing to build and successfully test the world's first hybrid airplane engine. Engineers around the world are seeking to address our reliance on fossil fuels before they become too scarce or carbon emissions have an irreparable effect on the environment by developing a variety of sustainable solutions, such as solar panels, wind farms and ocean turbines.

Vehicular engines were a little trickier, but hybrid engines which combine fossil fuels with electricity are on the rise. And now, someone has put one in an airplane (which is great, because airplanes produce a lot of CO2 emissions).

A team of researchers from Boeing and Cambridge University have successfully tested the world's first aircraft powered by a hybrid engine, and not just any hybrid engine, either. It's a parallel hybrid engine capable of re-charging as the plane flies.

The plane in question is a single-seat light plane, weighing in at just 140 kilograms (309 lb.) without pilot or fuel, and its hybrid engine uses up to 30 percent less fuel than a petrol engine in a comparably sized plane.

Spartan College Agrees To Buy 20 Electric Trainers



Spartan College of Aeronautics and Technology, based in Denver, Colorado, has signed an agreement with Aero Electric Aircraft Corp. to buy 20 electric-powered two-seat trainer aircraft. The college has reserved the first delivery positions for the Sun Flyer airplane, which is still in development. "This agreement signifies our commitment to innovation and to serving the next generation of pilots," said Peter Harris, CEO of Spartan College. The electric airplanes, Harris said, "will make flight training more modern, accessible and economical than ever before." George Bye, CEO of AEAC, says the Sun Flyer will be cheaper to operate than conventional trainer aircraft.

The company brought its single-seat technology demonstrator, Elektra One, to Redbird's training conference, in Texas, last [October](#). Bye said the final version of the two-seat, FAA-certified aircraft will cost as little as \$5 an hour to operate, including battery replacement costs. AEAC is now working on initial R&D flight-test operations at Centennial Airport near Denver. Flight tests will continue while the first two-seat prototype Sun Flyer is being assembled, the company said.

Wis. EAA chapter partners with area teens to rebuild airplane

Members of the Superior, Wis., Chapter 272 of the Experimental Aircraft Association have partnered with area teenagers to rebuild a 1948 Aeronca sedan, currently sitting in pieces at Richard I. Bong Memorial Airport. "We want to give [kids] the idea that if you dream about something, you can do it," said EAA member Al White.

Johnson High School from Page 1

multitude of methods in all corners of the world, but they've learned to communicate navigation techniques as ATC does. Of the three classes I teach this term, I have about 20 students in each class and though we've learned so much about flight - the sensations of flying a real airplane, or even fly in an airplane at all is something very few students of mine have experienced.

Not every student of mine wants to be a pilot, but I have delivered the "bug" to many students who would not have followed the aviation path before and there are a number of students that I truly feel would have a huge benefit from the experience of a



real flight. One student in particular - is a Hmong female who is a senior. Having been in my aviation class since September, she caught the flying "bug" and is doing a senior project about Aviation which she will present to a panel of teachers and administrators at JHS in February. She has spent a multitude of hours after school - advancing her flying and navigational skills in the simulators as a basis for her project. It was not until just a couple weeks ago, after talking to her, that she has never been in an airplane - yet she is making plans to go to Mankato State to go into Aviation with the desire to become a pilot. I told her that I would find some way for her to fly in a real airplane before her senior project presentation - even if I have to pay for an intro flight out of my own pocket. I wanted to connect with you to see if you could help me get her a flight - perhaps with a female pilot that she can build a relationship with as a mentor to connect with through her aviation journey at Mankato State U.

I would like to attend your EAA meetings at Lake Elmo and build relationships with other pilots who may be helpful in enhancing the learning and making the aerospace program at JHS so much better than just simulators. Link to WCCO news article: <http://minnesota.cbslocal.com/2015/02/13/high-schools-flight-simulators-turn-students-into-pilots/>

EAA CHAPTER 54 TREASURER'S REPORT

BY TOM GIBBONS

EDITORS NOTE: AS DISCUSSED AT A RECENT BOARD OF DIRECTORS MEETING, THE TREASURER'S REPORT WILL NOW BE ON OUR WEBSITE AT WWW.EAA54.ORG/MEMBERSONLY





FROM THE FLIGHT DECK (PRESIDENTS REPORT)

JIM PEARSALL

Greetings Fans of Chapter 54! I trust the folks I am reaching this month are either enjoying our relatively benign (as in compared to Boston) upper Midwest winter weather or experiencing a chance to escape into lower latitudes. I had such an escape opportunity last month and was lucky to prepare the last installment of this journal from sunny Florida. If you are in another category and are based at some locale with continuous habitable climate at least you have this newsletter to help escape what must be a horrible boredom.

Since I last wrote we had our 2015 Chapter 54 Board Planning meeting outlining a few key events and overall strategy for the year. Major themes were to do as we have in the past, using our resources to support Aviation education. Our tradition of supporting an attendee to the Air Academy will continue this year with a plan to add, thanks to a generous benefactor looking at sponsoring an older attendee to the advanced academy. We will also host a hangar tour for kids from Farnsworth and considering how else we could be of assistance to educating young people about the world of aviation.

We have in the last month established a connection with Johnson High School in St Paul who has a exciting new aviation program. If you attended our January meeting you heard about the program. If you were at this months chapter meeting you learned more about the program from Paul Randall who has volunteered to be a liaison with Johnson. Currently Paul is reaching out to the chapter to see who would like to help on the ground at Johnson, lending their time to shepherd students as they discover aviation with these great tools. the many flight simulators and assist If you think you might be interested in spending time at Johnson, working with fledgling aviators. please let Paul know.

A few dates for the forthcoming year are established. First our Aviation Day is set for August 16 at Lake Elmo. Traditionally we have had this event two weeks after Air Venture but with this event moving back a week to mid-July we have left our event anchored in mid-August. This fits with availability of the Minnesota Wing of the CAF, existing expectations and the chairs are available and, yes, reserved! Other dates are the our annual work party trip to the Air venture grounds May 2nd and the Farnsworth Kids hangar tour is scheduled for May 21.

I wanted to close this month with a review of our mission and what motivates us. Since my earliest involvement with the chapter I have understood our efforts are primarily focused on education. Personally I feel that is the primary mission of EAA as a whole. Through our ground school, involvement with local schools, ground school and inviting folks out to our annual Aviation Day, I believe we are doing a great job at fulfilling this mission. I am encouraged by all of our efforts that we will continue to do so and with our new efforts do even better. Oh, and by the way, being involved with this mission has a secondary effect for us FUN!



Tailwinds Flying Club Partnership Welcomes New Members

Tailwinds Flying Partners is based at Lake Elmo airport. We are a non-profit corporation of 39 pilots who equally own three aircraft and one hangar (25E). Our goal and philosophy are to fly great airplanes safely and inexpensively. We currently have a Cirrus SR20, Archer II and Cherokee Six. Some of our members belong to EAA 54 and we love to fly Young Eagles. Please stop by and visit us anytime! To inquire about membership, please [email](mailto:) or call Mark at 651-983-6206. www.tailwinds21d.org

Johnson High School Aero Space Program —Scott Shafer

I really enjoyed your presentation at the EAA Chap. 54 Meeting. You have a great program at Johnson High School; congratulations.

You mentioned at the meeting that the program would benefit if you had a crew of volunteer pilots to assist you when your students are flying the simulators.

Virtually all of our chapter members are pilots and a significant percentage are retired, so we have the potential to help.

Many of the members are enthusiastic about helping.

We want to move forward with the idea promptly.

I volunteered to be the liaison between Chap. 54 and Johnson H.S. at our 1/24/15 Board Meeting.

I would like to meet with you at Johnson H.S. at your convenience. Please call to plan a date & time.

Thanks, Paul Randall, CFI-G

'WOMEN SOAR YOU SOAR' HELPS HIGH SCHOOL-AGE GIRLS DISCOVER AVIATION AT EAA AIRVENTURE OSHKOSH 2015

Registration for attendees, mentors now open for July 19-22 program

EAA AVIATION CENTER, OSHKOSH, Wis. — EAA's Women Soar You Soar day camp program, which allows 100 high school-age girls discover more about aviation and all its possibilities from aviators, engineers and leaders during EAA Air Venture Oshkosh, is scheduled for July 19-22 and now open for registration.

The Women Soar You Soar program is welcoming both enrollees as well as female mentors from the aviation and aerospace fields. The program's unique 100-to-25 attendees-to-mentor ratio provides a tremendous opportunity for young women to discover all the possibilities within the world of flight, with the possibility to ask questions of women who are already noteworthy and established in the field.

"The close-knit community between girls and the mentors creates a bond during Women Soar You Soar that is unlike any similar program within aviation or technology," said Janine Diana, EAA's vice president of people and culture. "Add to that the excitement and fun at EAA Air Venture Oshkosh – the World's Greatest Aviation Celebration – and it creates an unforgettable adventure for young women who are just discovering where they want to go in life."

Activities over the four-day session for girls entering grades nine through 12 in fall 2015 include flight simulators, workshops, sessions with aviation personalities, and insider access during the Air Venture air shows.

Cost is \$75 per participant and is in a day-camp format, with accommodations not included. More information and registration materials are now available at www.eaa.org/womensoar. The program also welcomes additional mentors who are women from all walks of the aviation and aerospace community, and want to give back to the next generation.

Women Soar You Soar is supported by Embry-Riddle Aeronautical University, Women in Aviation International, International Society of Transport Aircraft Trading, and Jerry and Lori Fussell.



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