

Volume 36

Issue 8

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FT	3000	6000	9000	12000	18000	24000	30000	34000
BRL	1937	2211	2211+12	2611+07	9900-09	201034	203344	223343
DBQ	1922	2211	2211+12	2611+07	9900-09	201034	203344	223343
DSM	1919	2211	2211+12	2611+07	9900-09	201034	203344	223343
MCW	1709	2211	2211+12	2611+07	9900-09	201034	203344	223343
JOT	2229	2215+18	2106+13	2706+06	3205-09	9900-19	1433	182544
SPI	2028	1921+18	1911+12	9900+06	3611-10	3408-20	191034	161745



EAA Chapter 790

Lake in the Hills, IL

790.eaachapter.org

In this Issue: Washington Island Fly Out; August Fly Out; Ole's Challenge #3 and #2 winner; Oshkosh AirVenture Pictures; Electrics in the News; Boy Scout Aviation Explorer Post Volunteers; Pancake Breakfast receipts

From our July Young Eagles Event. Nice article from Daily Herald. We flew 64 YE's that day. Our next YE's event is this Saturday. Doors open at 8:00 AM. Planes, volunteers and lots of smiles are welcome.



JOHN STARKS/jstarks@dailyherald.com

Travis Ardito, 11, climbs up the wing and into a Piper Cherokee for a free ride Saturday at the Lake in the Hills Airport. His sister, Norah, 10, already is inside wearing a headset. The Experimental Aircraft Association Chapter 790 of Young Eagles was giving rides to children. At right, pilot Rich Oleszczuk, of Barrington, talks about his Piper Cherokee with Norah Ardito, Travis Ardito and Austin Einsiedel before taking them for a ride Saturday at Lake in the Hills Airport.

Young Eagles take to the sky

Daily Herald report

The Experimental Aircraft Association Young Eagles program took flight Saturday at Lake in the Hills Airport with a lot of young, wide eyes on board.

Chapter members donated their time and aircraft to provide introductory rides for kids ages 8 to 17 to help them experience the thrill of flying.

Youngsters could ask pilots anything they wanted and learned about airplanes and the principles of flight.

Travis Ardito, 11, of Mount Prospect, said he

was there because, "it's in human's blood to explore the unknown."

Then he got down to business and asked pilot Rich Oleszczuk of Barrington if his bright red Piper Cherokee could fly 200 mph like another plane on the tarmac.

"We don't even want to go that fast," was the reply.

Oleszczuk explained that the 50-year-old four-seater travels more than two miles per minute, or about 135 mph.

Pilots explained what the plane does, how to read an

instrument panel and some basic aeronautics. They also identified points of interest from the air.

"I liked being above all the water," said Norah Ardito, 10, Travis' sister, who rode with him in the rear seats. "I liked to tip and see the ground."

Future Young Eagle flights are scheduled for 8:30 a.m. to noon Aug. 5, Sept. 2 and Oct. 7, all at Lake in the Hills Airport, 8407 Pyott Road.

For details, call (847) 468-9437 or visit 790.eaachapter.org.



PHOTOS BY JOHN STARKS/jstarks@dailyherald.com



Dawn and ditto of Mount Prospect wave children Norah, Travis and Austin as they take off at the Lake in the Hills airport. Travis and Austin were riding in the Piper Cherokee. Pilot Rich Oleszczuk, of Barrington, and Travis Ardito, 11, of Mount Prospect, said he

Oshkosh 2017



Mike Peranich



Tom LeGates



Tom LeGates



Tom LeGates



Dave Boone



Tom LeGates

More Oshkosh Photos, provided by John Kinyon



Boys Scout Aviation Explorer Post

Three or more volunteer Post leaders are needed in order to establish an Aviation Explorer Post affiliated with Chapter 790. Meetings time, date, frequency and agenda are solely up to the Post Leaders. Entry costs for the leaders will be paid by the Chapter. Insurance is covered under the BSA policy. The purpose is to inform and promote careers in aviation. If interested or would like more information contact Paul Ranieri at "P.ranieri@comcast.net" or Tom Solar at "tomsolar@sbcglobal.net"



The Receipts are in for the 2017 Pancake Breakfast. Net income after all expenses is \$2,650.31 and 490 people were served. This was a huge success for the Chapter and Youth in Aviation, our largest event ever. Thanks to all who helped with the setup, serving and cleanup. Special thanks go out to Lon Danek our Chairman and Tom LeGates and Rob Nelson for their fine work.



Aviation Challenges

by Ole Sindberg

Challenge #3

In the early eighties I was flying as co-pilot on the DC-10 for United Airlines.

Every year all of us had to spend several days at the training center in Denver for proficiency training (PT) and checking (PC). On the last day of these sessions, we usually had a simulator period where actual line flying was simulated, but with a twist – namely that one or more problems were introduced – and whatever we did, we had to live with it till we got the airplane on the ground.

During one of these PC episodes, we planned a night flight from Denver to Chicago. It was to be my leg and the Captain in the left seat was instructed to do only the duties of the non-flying pilot. During the briefing we were advised that we could expect good visibility en route, but with a high Cirrus overcast obscuring the stars and there would be no moon. Also a low overcast, so lights on the ground were also obscured. There would be significant thunderstorm activity over the mountains to our west, but little or nothing on our route.

The simulator was state of the art, with excellent visuals out of the cockpit front and side windows. It also rode on 30' long hydraulic supports to give us realistic motion. It cannot simulate G's including negative G's for more than a few seconds, but overall this kind simulation is very real.

So off we go, pretty soon climbing on instruments NE bound at 310 knots indicated. We could see no horizon, no stars and no ground lights, but as advertised, flight visibility was good. At about 20,000 feet, I picked up a single light at my 2 o'clock position. It did not seem to move relative to us, and I suspected the instructor in the back of the simulator had set us up on a collision course with another airplane. Sure enough – the light grew bigger, became not one but several lights and it soon demanded evasive action on my part. I decided to pull up and start a hard right turn. This maneuver was done visually with reference limited to what I saw out the windows. It was effective in as much as I saw the other airplane go under our DC-10 and disappear from view.

At this point I returned to flying the airplane by reference to the instruments. I rolled the wings level and resumed the climb. At least that was the intention – however, within seconds instead of climbing, we started losing altitude. I pulled back on the yoke with no effect, and now the airspeed started to increase. I checked the attitude indicator (artificial horizon) and verified that the horizon bars showed that the wings were level. The Capt.'s attitude indicator showed the same. By now drastic action was required as the speed was approaching the VNE speed of 350 knots IAS. I closed the throttles and pretty soon followed up with speed brakes. I yelled at the Captain to help pull us out of the dive we were obviously in. The VSI was pegged at 6000' down – in reality probably closer to 20,000' down.

So here is the challenge: What went wrong?

Three possibilities exist – external factor such as the weather, the airplane or the pilot.

Which is it and how?

Contact Ole Sindberg “atoleeva@sbcglobal.net “ with your answer

BTW. John Kinyon was the first correct answer for Challenge #2

CHAPTER FLY-OUTS

July 15th Washington Island Annual Fish Boil

Our first Chapter Fly Out to Washington Island. About an hour and a half trip. The air was smoooooth at 2500 and smoooooth at 4500 returning. Over 100 planes flew in. George Roby and I flew in with the rental 172 from Westosha, Paul flew his Glasair with Ole and Rich flew his Cherokee with brother in law Phil. It is a wonderful flight over the majestic Door county peninsula. One can see Lake Michigan on one side and Green Bay on the other. A great summer flight.

The fish boil is sponsored by the Lions Club of Washington Island and all proceeds go to local community events. I forgot how to take the bones out of the white fish and smoke does get in your eyes.

I arranged a meeting with George Ulm, one of the 742 permanent residents on the Island. See previous issue of my fly out to visit George's ultimate Ham shack.

His wife Sue was kind enough to pick us up and drop us off after the visit. Very hospitable people and they would have loved to talk further and show us more of the Island. One can book a stay at one of there cottages. If interested, there web site is:

www.greengate-wibb.com

Any type of Ham radio and most are working can be observed. George even has a broadcast station and some Collins Transmitters (just like the ones I kept running while in the Navy). His stories are varied and encompass many of the early pioneers of radio.

Article and pictures,

Tom Solar



WW II Pacific Shore Watch Station BD6

August Fly Out

For our August chapter fly-out we are flying to Carbondale II KMDH to witness the solar eclipse in the path of totality. The partial eclipse will begin at 11:52 a.m. and end at 2:47 p.m. and totality will begin at 1:21 p.m. on Monday August 21. We should plan to arrive around 11:00 or sooner and depart at will. The airport will be serving food and has the glasses available. Also, some will be going down early and making a weekend of it; there is plenty to see down there. Please review the info below from the Carbondale airport manager and let me know ASAP if you are interested in the trip so we can fill seats, thanks.

Paul Ranieri

p.ranieri@comcast.net

- For your fly-in registration to KMDH (Carbondale). We look forward to having you on the field with us. To date, we have about 50 aircraft registered, with most intending to arrive/depart on Monday, August 21. As you can imagine, we cannot predict the ultimate size of the event attendance. Additionally, many pilots may not register with us.

Important Facts:

The vast majority of attendees will be staying on the airport Monday. We plan to have food, water and eclipse glasses available. The water, glasses and lunch are free. However, our simple lunch (grilled hamburgers/hotdogs and chips) will have a suggested donation of \$2.38 per person (the duration of totality over the airport). Our convenience store/café will also be open for your use.

- In addition, we will have Solar Eclipse (including glow in the dark shirts!) and other aviation merchandise for sale through our vendor – *Runway 36*.
- On the 21st, we will have tents, tables, chairs and cooling fans in a central location to use during lunch and for rest. However, we only have capacity for 150 chairs, so you may want to bring some.
- Camping: For those who will be camping with us, please refer to the attached diagram for the designated location and please announce that intention to ATC when you arrive. Our FBO line service staff will then direct you into a grass location.

Rental Cars: For those of you who have requested a rental car, Amanda, our FBO Lead CSA, will be contacting you regarding your specific Enterprise rental car needs, our on-site vendor. Additionally, her email is: ajsblondie@gmail.com and her phone is: 618-529-3377.

Arrivals:

- When you arrive, please watch for our FBO line service team who will be directing you into tie-down locations. We will have some of our FBO CSA's in golf carts to move you about the field.
- We have 90 hard surface tie-downs and a lot of chocks, but we would encourage you to throw a pair of chocks in your aircraft just in case.
- We do not anticipate any special arrival or departure procedures for that day unless we realize significantly larger advanced registrations. Given that possibility, please stay alert to NOTAMS that may be issued for that weekend.

Departures:

- Will be first come/first serve as directed by ATC. Our FBO Line service team will be available to assist with ramp control should it be needed.

Contact:

- o Feel free to contact our FBO for specific needs such as fuel or rental cars at the following number:
- o Phone: 618-529-3377 (everyday: 7a – 8:30p) Email: zac@southernskymaintenance.com

ELECTRICS IN THE NEWS

WOW, the recent announcements in battery technology are moving faster than even this optimist was optimistic about:)

Volvo has announced beginning in 2019 they would only be building hybrid and electric vehicles (the Chinese Geely Group bought Volvo from Ford in 2009).

Tesla met with the Chinese earlier this year concerning electric vehicles. As in the US, cars generate a huge amount of air pollution. Those who have been to China the last 11 years understand their dire air quality and their people are speaking out. Their new Hydroelectric dam has eliminated the need for some of their coal fired utility plants. Panasonic is building a battery plant in China.

Toyota just formed a new division for electric vehicles to be brought to market by 2020 and they will be using the recent solid state battery technology. This technology was developed by Dr. Goodenough, yeah that's right, from the University of Texas, Austin. Dr. Goodenough was the co inventor of the Lithium battery. Sounds like a James Bond movie, eh? These batteries will have an open license agreement and the inkling I have read is the glass is fiberglass. Can't confirm that since the details are secret. Supposedly they don't exhibit the dendrite problem as does Lithium Ion batteries, they run cooler, have a higher density and charge faster.

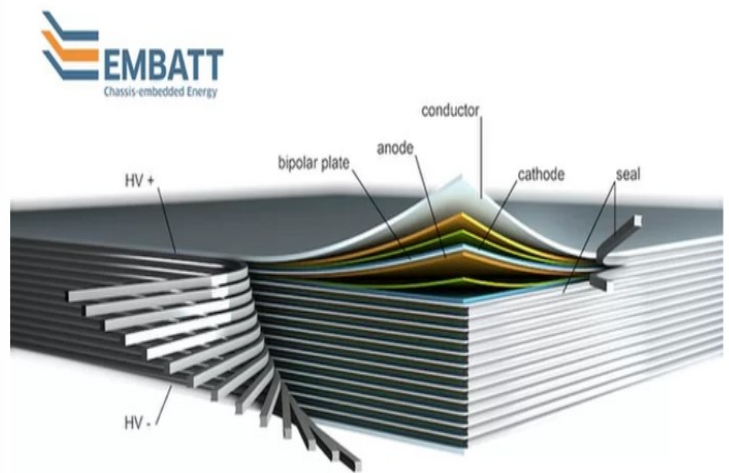
Another battery which this author mentioned in a previous "Electrics in the News" article is the Graphene Nano technology. A start up electric car org was originally going to use this technology but has back pedaled this month. However, checking out the battery type, it already is in production for RC (radio controlled) electric airplanes manufactured by Turnigy. Electric RC airplanes have been around for some time, in fact Yuneec of electric RC developed one of the first electric prototype airplanes shown at AirVenture 2010. As with most new technology, it is first released as a toy, so the public can gradually accept it. Unfortunately Yuneec sold this to Green Wing and they went belly up.

A newer battery technology by EMBATT I just read about comes from Germany. Their observation is that 50% of the space of the current lithium ion battery is taken up by the case, anodes and cathodes. Eliminating this issue would allow a 650 mile range for the same weight and density of the existing car electric batteries. The components are stacked like a ream of paper on ceramic film. See illustration.

So how does this relate to Electric Aircraft? Well the flight time limitation of electrics has always been the battery. Two issues ago I mentioned just several of the proto-type electric aircraft and there now are even more. Now how fast can they get to market and more importantly how quickly can the FAA authorize Electric aircraft for general aviation, training and commercial applications?

The WAVE OF THE FUTURE.

Tom Solar Newsletter Editor



An illustration that shows how the new electric battery is stacked like a ream of paper.

Credit: Fraunhofer IKTS

From an interview with Marty Cooper, the founder of the handheld cellular phone at Motorola. Some sage observations.

Cooper: Well, you know, if you're going to dream realities, you have to know what you're dreaming about. The skill is ignoring reality and thinking about what really could be.

Pogue: So when you're working on something like a pager or the first mobile phone, are there naysayers?

Cooper: Everybody's a naysayer. Especially the bean counters. If you can't point to getting profits and revenues in a reasonable amount of time, then they're negative, regardless of how great the story is. But even when we had proved the cellular concept, and we were ready to go public, I had a guy from London tell me: "We think that the total market for portable phones in London is 12,000". And its more like 12 million now.

Pogue: Where is that guy today?

Cooper: Yeah, exactly

FOR SALE (Price Reduced)

by Chapter Member Dave Boone

LANCAIR ES KIT • \$45,000 • **ACCEPTING OFFERS** • Lancair ES "Fast Build" kit for sale (still in crates). Purchased 2001. Stored in hanger. This kit has all components except engine and interior. A&P owner has completed the horizontal tail. Fast Build firewall, wings and tail . Wing mate. Construction tables available. I am getting ready to move and have no place to store the project. Project located in Northern Illinois. • Contact David A. Boone, Owner - located Crystal Lake, IL USA • Telephone: 815/540-8327 . 815/455-4555 • Posted December 7, 2016 •



Chapter Calendar

- Board Meeting August 1st LITH
- August 5th Young Eagles LITH
- August 21st Carbondale Solar Eclipse Fly Out
- August 22nd Chapter Meeting LITH
- Sept 2nd Young Eagles LITH
- Sept 19th Chapter Meeting LITH
- October 3rd Board Meeting LITH
- October 7th Young Eagles LITH
- October 24th Chapter Meeting LITH
- Check the Chapter Website "<http://www.790.eaachapter.org/>"
for any additional details and a list of local chapter events in the area

Saw this returning
from Westosha
Airport in Wilmot,
Wisc. It does
make you take
notice and slow
down.

P.S. No one was
shot



EAA Chapter 790 Membership Form - 2017

or sign up on the Website under Chapter Membership

First Name: _____

Last Name: _____

Spouse: _____

EAA Membership Number: _____ (Must be an EAA member)

Street Address: _____

City: _____ State: _____ Zip: _____

Home Phone: _____ / _____ - _____ Cell Phone: _____ / _____ - _____

Email Address: _____

Own Aircraft: yes or no Model or Type: _____

Aircraft Project: yes or no Model or Type: _____

For Young Eagles

If you have completed Youth Protection training, what was the date _____

If you have completed the background check, what was the date _____

Dues

\$25.00 Family/Individual Renewing Membership _____ \$10.00 Family/Individual First-Time Membership _____

\$10.00 Out of State Membership _____ \$10.00 Student Membership _____

Please make checks payable to "EAA Chapter 790" Bring this form and payment to a members meeting, or mail to:

EAA Chapter 790, PO Box 1206, Barrington, IL 60011

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