



The Beacon

The newsletter of Chapter 54
Lake Elmo, Minn.

MARCH 2018

March 2018

NEXT MONTH'S PROGRAM WILL BE ON

MONDAY April 9, 2018

- Social Hour 6:30 PM Meeting begins at 7:30 PM
- Speaker: Marlon Gunderson — Cozy Aircraft
- CHAPTER HOUSE, ENTRANCE B, LAKE ELMO AIRPORT 21D

INSIDE THIS ISSUE:

NEW PROP	2
MONTHLY MEETING NOTES	4
ENVIRONMENTAL ASSESSMENT 21D	5
PRESIDENTS MESSAGE	6
BOARD MEETING NOTES	7

Chapter Calendar of Events

April 9 Chapter Meeting - The Cozy Build and Flight by Marlon Gunderson

May 14 Chapter Meeting - Gyrocopters and General Aviation by Jay Schrankler

May 12 Young Eagles start

May 24 Farnsworth Elementary Hangar Tour

May TBA Banquet at Holman's Table

June 11 Chapter BBQ

July 9 Chapter Meeting TBA

August 12 Aviation Days - Pancake breakfast

August 13 Chapter Meeting

Meet Vice President Jay Schrankler



Jay is a new member of Chapter 54 within the last 2 years. He was elected Vice President last fall by unanimous vote. Jay is a licensed private pilot and recently added the gyrocopter endorsement.

Jay will be the featured speaker in May presenting about gyrocopters in general aviation.

The primary role of the Vice President is to help organize speakers for Chapter meetings so if you know of someone or have an interesting topic that would make a good presentation, please contact Jay, vicepresident@eaa54.org

A New Prop For My Trike

By Kevin Szalapski

I recently bought a new prop for my trike. My existing one works just fine however in the 14 years since it was installed on the trike there have been many advancements in newer, lighter props that deliver more performance. I was made aware of E props by Larry Mednick from Evolution trikes. He had always been installing Sensenich props on his Revo Trikes. There are no issues with these 2 bladed aircraft props and work just fine but the 2 blades are big, thick, and heavy compared to the E props.

Larry contacted several prop manufacturers to see if he could find a better choice than the Sensenich. Several companies sent them their models designed to bolt onto the Rotax 912 drive shaft.

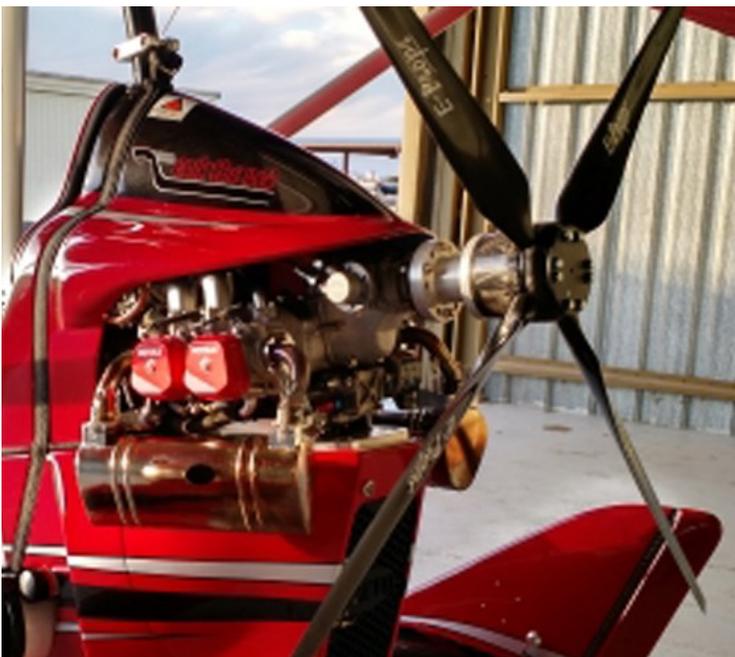
He installed several of props on his Revo trike to see how they all performed. He really liked everything about the Excalibur prop by Helices. The prop is manufactured in France, and it stood out beyond all the others.

Details about the Prop - This model comes in 3, 4, and 6 blade versions in a pusher configuration for many Light Sport Aircraft. They also have a Durandal model for tractor configuration. One big advantage I liked about these props is that they come factory balanced, so I do not have to pay a prop balancer guy to balance the prop.

The hub is color coded so both halves go together the correct way. I bought the 4 bladed version, so every blade and slot is also color coded, so the prop goes together exactly the way it was balanced at the factory.

Setting the pitch of the blades is very critical to getting a smooth running engine. I was always intimidated by this set up process and knew it had to be very precise. Larry made an instructional video that was very helpful for installation and pitching of the prop.

One nice addition to the prop kit the Helices company sends you is a digital protractor with the prop that is mounted on a bracket, that has a lip that rests over the prop for the



sends you is a digital protractor with the prop that is mounted on a bracket, that has a lip that rests over the prop for the pitch adjustment. This protractor also has a level at the top that sets the pitch of each blade in the same position every time.

You also measure 15.75 inches from blade base and mark all 4 blades to be level and in the same place when adjusting pitch. The bolts use Nordlock washers so no safety wire is needed after torque is set, and the washers can also be reused.

Performance and Reduced Load on the Engine The blades and the prop hub are both made of carbon fiber. On the Excalibur model, the 70 inch long blades are very thin, and light weight. When starting a 912 with most props, the gear box chatters loudly until the prop RPM catches up with the engine.

The start up with the Excalibur prop is very easy on the



gear box as the engine sees very little of a load from the prop. The unique dihedral hub design angles the blades forward and uses centrifugal force to counter the effects of blade flex under load.

The tolerance for the pitch setting is .3 degrees plus or minus from the desired pitch angle. The closer you can the pitch angle on every blade will make the running very smooth which is great for the engine gearbox and aircraft performance. The number of degrees varies between the blades and this creates a smoother running prop. I should see an increase in my rate of climb on take off.



Cost and Delivery - The cost of a 4 bladed prop and spinner was \$2250 including shipping and was shipped from France directly to my house. It came very well packaged and arrived with no damage to the contents. Many Revo pilots and some Airborne owners also have swapped out their older Sensenich props for the

Excalbur props and are really enjoying the way they fly. They are used in many of the Rotax engine 912 versions as well as on trikes, gyrocopters, airplanes, and paramotors. I have included photos of the props and aircraft applications.

For more information and the link to Larry's interview and installation video can be found at: <http://evolutiontrikes.com/e-props/>



More Airventure airplane photos below



EAA CHAPTER 54 *The Beacon*

Chapter 54 March Meeting Notes Jim Pearsall, Chapter Secretary

A monthly report of our regular Chapter Program Meetings.

Arriving at the clubhouse well before 7, I found many cars parked, for the most part obeying the prominent Keep Off the Grass sign. Entering the clubhouse I was greeted with warmth, the heat was back on, the furnace was not functioning the previous Saturday at the Board meeting. In a pre-meeting huddle with President Jack Miller, he communicated he would like to forgo a Power Point presentation. He preferred to do a Chapter Brief which included a few agenda items ahead of Leif's presentation.

Jack started the proceedings precisely at 7:30 with introductions of first-time visitors and self identification of second visit folks. Of these, there was one first time and four second time visitors that were welcomed.

A feature of the meetings Jack has introduced is the book report. This month Jack featured a training manual VFR Communications. He related his primary training was done at a towered airport, but he lacked currency and felt this manual would help him or others needing a refresher sharpen skills.

A review of recent and upcoming chapter events was the next topic. The note was made of the Board Meeting the previous Saturday, the minutes for which should be available in the next newsletter.

Our next regular meeting program on April 9th will feature Marlon Gunderson reporting on his Cozy project. See the July 2017 Beacon for a prevue. Other dates include our May meeting which will feature Jay Schrankler on Autogyros,

Our Young Eagles event is every second Saturday of the month starting May 12. Our Farnsworth School Hangar Tour is May 24th. Tentatively planned sometime in May is a social event, possible Fly Out to Holman Field (KSTP), Holman's Table. The plan is this will not replace our Spring event, but that is proposed to move to June meeting in the typical Cookout fashion.

Leif Erickson Weather in the Cockpit was the monthly program presentation. Those in attendance got a review of online weather briefing tools and a walkthrough of weather planning for a theoretical flight. Weather terms discussed in the forum included the notoriously ambiguous "Vicinity of the Airport." A quiz followed testing the group's weather knowledge.

Two Different Air Taxi Type Aircraft at Airventure



The Draft EA/EAW for the Lake Elmo Airport is published on the project website under the Documents and Links tab ([www.metroairports.org/ General-Aviation/Lake-Elmo- Environmental-Assessment/ Documents-and-Links.aspx](http://www.metroairports.org/General-Aviation/Lake-Elmo-Environmental-Assessment/Documents-and-Links.aspx)). The April 4th Public Hearing is posted under the Community Involvement tab on the project website and under the Other MAC Meetings page of metroairports.org. Notices will go out in area newspapers this week. Written comments will be accepted until 5:00 p.m. on April 19, 2018. Written comments can be submitted via email to ContactLakeElmoAirportEA@mspmac.org or submitted in-person at the Public Hearing.

DRAFT FEDERAL ENVIRONMENTAL ASSESSMENT (EA) /

STATE OF MINNESOTA ENVIRONMENTAL ASSESSMENT WORKSHEET (EAW)

FOR RUNWAY 14/32 RELOCATION/EXTENSION & ASSOCIATED IMPROVEMENTS

at Lake Elmo Airport in Baytown & West Lakeland Townships, Minnesota

prepared by Mead & Hunt, Inc. under contract with the Metropolitan Airports Commission

February 2018

The proposed action consists of the following components:

- Relocate Runway 14/32 by shifting 615 feet to the northeast and extend to 3,500 feet, including grading, clearing, and runway lighting.
- Extinguish existing prescriptive easement for 30th Street North and seek, as appropriate, a land release from the Federal Aviation Administration (FAA) to allow realignment of 30th Street North around the new Runway 32 Runway Protection Zone (RPZ) to reconnect with the existing Neal Avenue North intersection
- Relocate the Airport perimeter fence to reflect the new Runway 32 RPZ
- Remove the existing north side taxiway and compass calibration pad and construct a new cross-field taxiway to serve the new Runway 14 end, including taxiway lighting and/or reflectors.
- Convert existing Runway 14/32 to a partial parallel taxiway and remove the portion of the existing parallel taxiway south of the Runway 04 threshold.
- Reconstruct Runway 4/22 and extend to 2,750 feet, including necessary lighting and taxiway connectors.
- Construct other taxiways and engine run up pads as needed to support the relocated Runway 14/32 and extended Runway 04/22, including connector taxiways and a full-length parallel taxiway on the north side of the relocated Runway 14/32, and install taxiway lighting and/or reflectors.
- Relocate the compass calibration pad adjacent to the new partial parallel taxiway (converted Runway 14/32).
- Establish non-precision GPS based instrument approach procedures to all runway ends not already equipped.
- Provide Runway 14/32 lighting systems with the relocated runway.
- Install medium intensity runway edge lights (MIRL) on Runway 04/22, precision approach path indicators (PAPIs) on the Runway 04, 14, and 22 ends, and runway end identifier lights (REIL) on each end of Runway 04/22.
- Remove approximately 20 acres of on-Airport trees and individual off-Airport trees as necessary to clear trees that penetrate FAA Threshold Siting Surfaces (TSS)/Part 77 approach and transitional surfaces.
- Install obstruction lighting on fixed base operator (FBO) and hangar buildings in the United States Standard for Terminal Instrument Procedures (TERPS) departure surface areas beyond Runway 04, 14, and 22 ends.
- Construct an on-Airport access road connecting the north and west building areas.
- Voluntarily explore creation of Rusty Patched Bumble Bee/pollinator habitat on Airport property southwest of proposed 30th Street North realignment.

Chad E. Leque

Director of Environment

Metropolitan Airports Commission



PRESIDENTS BLURB (PRESIDENTS REPORT)

JACK MILLER

“We are shaped by where we have been and we are defined by where we are going” Anon
 Greetings EAA Members and Friends: We all have memories that shape us in one way or another. So the question comes to me ‘What are some of the memories that have given shape to EAA Chapter 54 as we know it today?’

This Chapter started March 1, 1959 with 31 charter members. Many of our current members weren’t even born at that time! We have about 110 dues paying members now.

The group met in several places at the start: Holman Field was one of them, also the Public Meeting Room at Sears near the State Capital, and even a few meetings out at the Lake Elmo Airport. The traditional dining location was always at the Pizza House on 7th Street. About 8 to 10 people showed up for those meetings. When they met Lake Elmo, they met in various hangars and helped each other with their projects.

The walls of the Chapter house are lined with photos and there is a story for each. In August 27, 2000 there was a serious wind storm. You can see the aftermath in the picture display on the wall in the clubhouse. The clubhouse was purchased and put in place for about \$7500 after the event.

Knowing our history is important — knowing where we came from and how we fit into the future is essential. I invite all of you to create your own memories this year by participating in activities that support our mission and values and join a community of people interested in aviation.

Landing gear example on the left and airplane parts that are made on a printer below, right.



EAA Chapter 54 Board Meeting March 10, 2018

Call to order 8:32 by Jack Miller, President



Attending: Jim Pearsall Secretary, Jay Schrankler Vice President, Jeff Hove Director Historian, Tim Gibbins Treasurer, Paul Hove Director, John Renwick Director Membership, Leif Erickson Director Education, David Syverson Director. With 9 of 11 Board members in attendance, a quorum was established. Joined later by Greg Adler Director Facilities

Approval of Minutes, May 2017 Board Meeting and November 2017 Membership Meeting
A motion to accept minutes as published in respective Monthly Newsletters was moved by Paul Hove, second by Tom Gibbons, passed without objection

Old Business

New Siding for Clubhouse

There was authorization in 2017 for spending \$2500

A motion was forwarded by Jeff, seconded by Jay to extend the authorization to 2018.

Discussion to identify the state of funds, what is prudent and proper for a nonprofit to have in reserve -
Motion carried.

Committee Reports

Education Leif Ericson

Ground School - 11 participants, Proceeds expected to be just under \$1100, less Event Brite Fees

A review of the Chapters support for Farnsworth, to provide funds to enable them to hire a motorcoach for students trip to Air Academy. Leif forwarded a motion to this year, as we did last, to send Farnsworth \$1000, Seconded by Dale Seitzer, carried unanimously

Farnsworth hangar tour will be May 24th; expenses will be nominal under \$100

Young Eagles - no report

Finance Reserves remain stable, a report will be provided at next Monthly meeting.

Facilities

Bylaws see below.

New Business

Aviation Day

Discussion around key roles to ensure success. A motion was made by Jim, second not required, to establish the currently promoted date of Aug 12th for the event. Carried

Banquet

Discussion around the purpose of a banquet established this should be an optional event outside our regularly scheduled meetings, events.

There was a consensus but not formal approval for the following schedule

May - Regular Meeting

Date in May TBD, possibly a Sunday- Banquet at Holmans Table, Jay to organize earlier to allow flying in daylight
June - Cook Out at Clubhouse
September - Cook Out at Clubhouse
December -Holiday Party

Web Presence

Jim Pearsall presented new EAA Web Platform for the chapter to use. A description of requirements, current functionality against that available for the new site. Jim and Michael Mckinnon are working to test and configure the new platform to suit. A migration would allow for the chapter to see the new site, evaluate before migrating.

Facilities Greg Adler

Greg described how students from the Trade Academy may be able to help with siding replacement. The \$3500 allocation was brought up, Greg is exploring possibilities. It was expressed that replacing Soffit and Facia would also be desirable.

WiFi

Jack presented value in having Internet in the Clubhouse. The expense was discussed, there was a consensus expressed the value is there, but need more information for a decision. Options understood to include a Cellular Hotspot or DSL. Jack to explore, report on options cost.

Bylaws - David Syverson

The issue is no authoritative source for the baseline. The principle being used is Integrating best of EAA Boilerplate and existing. Suggested patience. The process would be presenting proposed bylaws to board then chapter open for comment at each step; finalization requires presentation at the Annual Meeting.

General discussion

A question was asked about the appropriate frequency of Chapter Board Meetings, monthly quarterly? President is considering options. A motion was made by Paul Hove to Adjourn; Dave seconded, motion carried.

Meeting Adjourned 10:14

Old airport beacon comes down, headed for new home

By [Shelby Lindrud](#)

WILLMAR — For decades it helped pilots navigate safely to the Willmar Municipal Airport in what is now the Willmar Industrial Park. The airport signal beacon, which once lit the way from miles around, came down Friday morning on its first step to its new home.

The beacon, sitting atop its 50-foot tower, was probably installed in the mid-1930s when the airport was first being constructed as part of President Franklin Roosevelt's New Deal programs. It was one of the hundreds of similar beacons across the nation that pilots used to visually navigate their planes at night.



The beacon did its job for over 40 years, dusk to dawn and during poor weather, until the light finally went out sometime in the late 1970s or early 1980s. The beacon became a memorial marker for aviation days gone by, especially after the airport itself moved to its new location in 2006. A plaque placed on the beacon, which stood at the intersection of Airport Drive Southwest and Industrial Drive, explaining what it was and what did. However, Curry always had bigger plans for the beacon, feeling it was being forgotten where it was. "It sits in this corner, no one sees it," Curry said. The tower will make its way to Hanson Silo Company in Willmar to get a fresh coat of paint. Then in April it will be brought to the new airport and erected beside the F-14A Tomcat fighter jet.

FOR SALE

Stratoflex clamps PN 10781-4-22CR - SS clamps used for securing firesleeve over hose assemblies. I have 6 of these - \$2 each or offer (new price is \$4.35 ea at Aircraft Spruce) ddsylverson@comcast.net

Tailwinds Membership, \$4,000 see ad below. Josh Tocko (Owner) FLIGHT LEVEL 510 DESIGN 651.587.0999 design@fl510design.com

I am in a partnership on a 1958 Champ at Lake Elmo and one of the partners recently decided to sell his share and we would like to find a replacement. [Chip Berniard <eberniard@gmail.com>](mailto:ChipBerniard@gmail.com)

I have a share of the Hobo's Flying club for sale. Each share is worth 20% of the club (There are 5 Members). The plane is a 1971 Bellanca Champ Monthly dues: \$60 Wet hourly flying rate: \$50 Club Initiation fee: \$200 Asking price: \$6000 / obo wschanks@gmail.com

Piper PA-12 project; Additional miscellaneous parts and older instruments also available. This aircraft has been in my wife's family since 1971. No damage history and all logs. Asking \$35,000 for the project and \$23,000 for the 160hp 0-320. If interested, please email me at joelbrodd@gmail.com

WANTED

"Working Partner" to develop Durand Mark V as a Kit plane, working knowledge of Solidworks or CAD. An A & P background is desired...Investment is negotiable Contact Jim Swatosh 956-607-6088 jswatosh@hotmail.com www.durandmarkv.com

WANTED

Tanis heater for 200 HP Lycoming 360 needed in Mooney— Good used is okay if you know of someone that has one. Yes, this means I finally bought a plane. Thank you for any response. Roger Barcus 651-246-8028

WANTED — TO RENT

Hangar space to rent at Lake Elmo Airport for final assemble of Zenith 750. High wing about the size of a Cessna 152. Ed Trudeau 651-303-4936. N750ET@gmail.com



Chapter 54 Directory

Housing Director	
Dave Fiebiger	
housing@eaa54.org	
Membership Director	
John Renwick	
member-ship@eaa54.org	
Young Eagles Director	
Treasurer	
Tom Gibbons	
young-eagles@eaa54.org	
Newsletter Editor/Director At- Large	
Dale Seitzer	
newsletter@eaa54.org	
Chapter Historian:	
Jeff Hove	
Education Director	
Lief Erickson	
education@eaa54.org	
21D RCO 118.625, Uni- com: 122.8	
21D AWOS:120.075, TPA: 1932'	
Runways::	
4-22 (2497' x 75')	
14-32 (2850' x 75')	



Tailwinds Flying Club Welcomes New Members

Tailwinds Flying Club 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! North side, Fairchild Lane, Hangar 25E. To inquire about membership, please call 612-584-1740 or visit www.tailwinds21d.org.