



The Beacon

The newsletter of Chapter 54
Lake Elmo, Minn.

July 2021



21D RCO 118.625 COM 122.8 AWOS 120.075 Elev. 1932'
Runways **4-22** (2497' x 75') **14-32** (2850' x 75')

Chapter House, South Airport Entrance at the Beacon

Chapter Meetings 2nd Monday of Each Month
7:00pm social 7:30pm Meeting

Who's currently who in Ch.54:

www.eaa54.org

President: Leif Erickson
president@eaa54.org

Vice Pres: Gregg Adler
vicepresident@eaa54.org

Treasurer: Tom Gibbons
treasurer@eaa54.org

Secretary: *your name here?*
secretary@eaa54.org

Education Dir: Robyn Stoller
education@eaa54.org

Housing Dir: Dan Bergstrom
housing@eaa54.org

Membership Dir: John Renwick
membership@eaa54.org

Young Eagles Dir: Scott Hanson
youngeagles@eaa54.org

Newsletter Ed: Marlon Gunderson
newsletter@eaa54.org

Webmaster: Michael McKinnon
webmaster@eaa54.org

Directors, Class2: Tim Reberg,
Paul Hove, Bill Schanks Jr.

Social Media: Jim Pearsall
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From the Flight Deck (Leif Erickson)

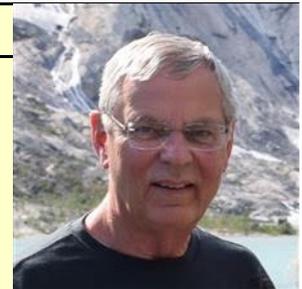
Finally, after over a year, the number of COVID cases is declining and society is returning to a near-normal pre-pandemic state.

The implications to Chapter 54 are also a return to pre-COVID activities. In July, we hope to start Young Eagles Flights. Our YE Director Scott Hanson needs pilots. If you are willing to help, please contact Scott for specifics about being a YE pilot.

Planning for a Young Eagles Workshops has resumed after a few-month pause. YEW is the aviation version of hockey camp, except on a smaller scale ... and no checking into the boards. The emphasis instead is on aviation. Robyn Soller has a tentative date for Saturday, September 18 for a one-day session. The target audience will be ages 11-14 years old. Robyn needs for volunteers to provide instruction for lessons on aviation topics and to develop building skills.

More good post-pandemic news, Chapter 54 is planning a chapter social gathering, including family members, in early September. Bill Schanks Jr is leading the organizing activities. This is what the chapter has waited for since 2019. Bill is planning something special and exciting. Rumor has it that Chapter member Dale Seitzer will provide musical entertainment ... and Mitch Zahler will provide fresh-picked home-grown sweet corn. The date/time Monday, August 8, from 5:00 to 8:00 PM. Plan for an outdoor event under the Chapter's circus-style tent. Please stay tuned as details are finalized.

Also, for the first time since March of 2020, we are planning for an in-person clubhouse Members Gathering for July. Gregg Adler will have details of the meeting available. We will have an in-person presence in the clubhouse and hopefully a virtual presence as well.



The virtual presence will be a challenge because of the lack on Wi-Fi in the clubhouse. To date, a couple of Wi-Fi options are being considered. One is a cell phone hotspot, and the other is a satellite internet provider.

Each has their advantages and disadvantages. The board will have to sort through all the options and hopefully have something up and running for the July 12 Members Gathering.

The cell phone hotspot is the quickest solution and the least expensive. It requires a new dedicated phone line for the chapter (which currently do not have), and a hotspot linked to the cell phone. Costs for the cell phone and hot spot are about \$60 per month. A dedicated phone line can also be published on our website. It will be an email alternative to contact the Chapter.

The more expensive option is a satellite internet provider. They may be out of reach cost-wise.

Internet access in the clubhouse opens the possibility for future clubhouse rentals such as Aviation Seminars. We missed out on a contract with them because of COVID capacity limit restrictions. With the size of our clubhouse, and State guidelines set at 50% capacity, we were only able to allow two people in the clubhouse at the same time. With that restriction, Aviation Seminars decided to look elsewhere for a larger capacity venue.

In addition, we will be scheduling Young Eagles Workshops in the clubhouse. Thought internet access is not critical at present, it may be in the future. We want to be ready when that moment happens.

We can also consider offering a ground school course on a hybrid model. Faculty and students will have the option to attend classes in person at the clubhouse to virtually from home.

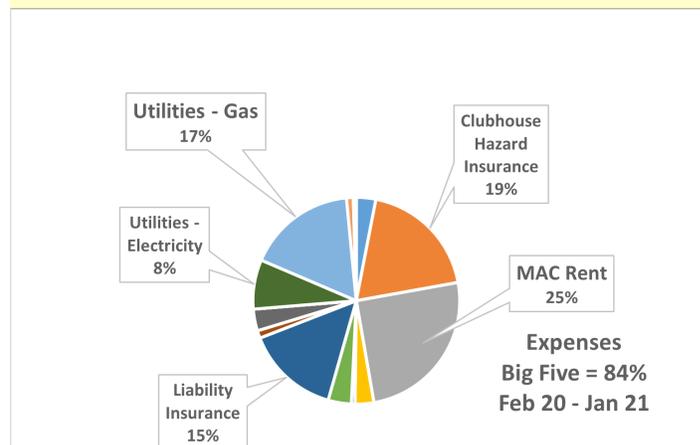
For our in-person Member Gatherings in the clubhouse, Wi-Fi access will allow us to provide a virtual attendance option for members and access to the EAA's Speaker's Bureau for programs. We can bring world class speakers to the chapter virtually, something we would not be able to do if speakers were required to travel to the clubhouse, for a one-hour presentation.

As I write this, the board is researching and comparing plans for bringing Wi-Fi into the clubhouse. Either via a hotspot and phone line or a satellite broadband

connection. The good news – we will have Wi-Fi in the clubhouse. The bad new – it will come at a cost that will be passed along to members. Bottom line – your annual membership dues cost will increase.

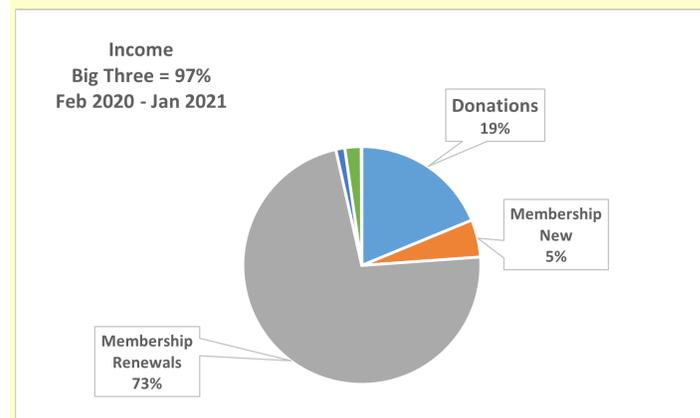
Finally, here is information has never been shared with our members, a summary of our income and expenses one year, from February 2020 through January 2021 Note the “Big Five” that constitute 84% of our annual expenditures. They are insurance, rent, and utilities.

Annual Expenses Summary



For annual income, see the “Big Three”. With 73% of our total 2020 income, membership renewals constitute are the largest single source Please keep the renewals coming. They are critical to the chapter’s operating income. Note what is missing – money from fund raising events. With COVID now behind us, this will be top priority for the summer of 2022.

Annual Income Summary



For calendar year 2020, the total income = \$3,244, total expenses = \$2,841, net cash flow = \$403.

Thanks for reading.
Leif E.

Members Column / Around the Field



On May 15th, Leif and Dan organized and brought back this Long Standing Saturday morning coffee clutch at EEA54 Club House. Dave Becker snapped a few photos and said, "We were all very tired of staying home and hibernating for the last year or so.... I am looking forward to a great summer at Lake Elmo again."



Thanks to Dan Bergstrom for the coffee, donuts, and prepping the deck.



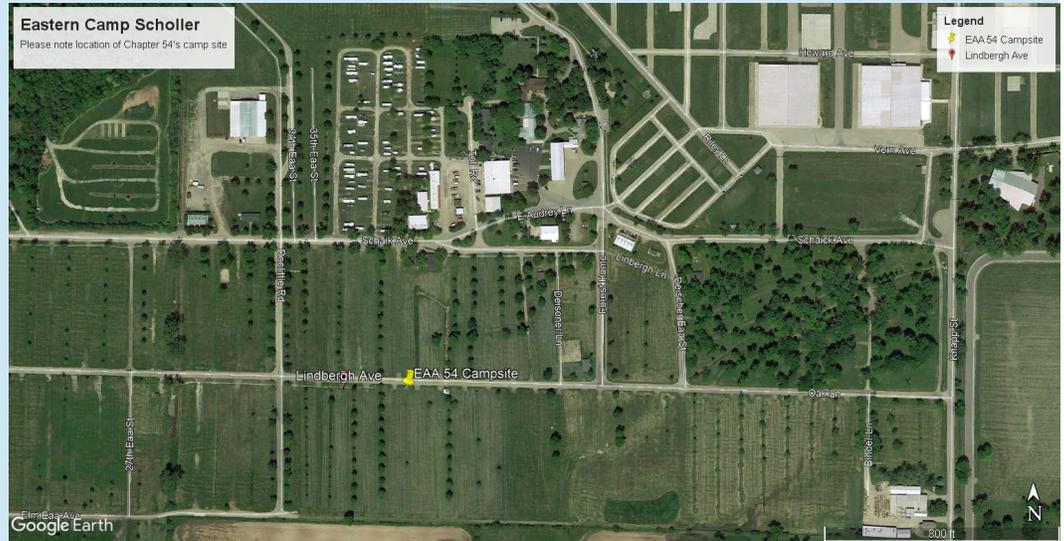
As July approaches, folks are making their plans for **Airventure** at Oshkosh the last week of July (7/25-8/1). Some Ch.54 members have coordinated to establish a 6 unit group in Camp Scholler (David Voker, Harry Fahl, Jay Schrankler/ Gregg Adler, Donaven Chase, Craig Mueller, Jim Swatosh, Paul Randall).

Some of the 6 participants may not use their whole week there, leaving slots available some days, and there may be room to pitch a tent or two among the RV's, so contact ringleader Dave Volker if you

are interested (651-249-1980, mrsafetytoo@gmail.com). Dave will be arriving on 7/17/2021 to mark camping areas and any help from other members would be appreciated. Also the Chapter 54 contingent encourages you to stop by to say hello during the week. Cold beverages and hot food may be available. The group has requested the site they've had

on prior occasions at 43rd and Lindbergh, with a backup request for 38th and Lindberg.

Please see the Google Earth Photo to the right for general location. The flight line is to the right of this picture. The Theater in the Woods is seen on the right edge of the picture.



Tom Gibbons shared some photos of his Pulsar project taken here while reorganizing his shop.



June 14, 2021 Chapter Meeting



At the June meeting, we welcomed new member Paul Skluzacek who owns and flies a Piper PA-12 and a Vans RV14-A. We then heard from chapter member **Lee Richards** in a walkaround of his Excalibur project which is nearing the 90 percent done, 90 percent to go stage. The Excalibur, a kit offered since 1993 by an outfit in Sebring, FL, looks like a more refined 2 seat Quad City Challenger II. Lee has the wing and control surfaces fully covered and drum tight with a nice shiny white finish, and it looks like finishing the fuselage covering is going to be the next order of business. He has a Rotax 582 Blue head mounted and ready to supply 64 HP of power from 2 liquid cooled cylinders and 2 Bing carbs. Lee is getting good advice and occasional help from chapter members including Gregg Adler and EAA Technical Counselor Dale Seitzer.

For the second half of the June meeting we heard from former Ch.54 President **Jim Pearsall** about the off field landing of, and resulting substantial damage to, his Pipestrel LSA due to a broken throttle cable while flying recently near Fort Collins Colorado. Jim was doing a BFR with an instructor at the time and the instructor was P.I.C. for the emergency. The Pipestrel's nosewheel caught a ridge during the rollout and flipped over as a result. Jim sustained minor bruises but the instructor suffered a fractured leg and ankle. They were in contact with an FAA tower during the event and emergency responders arrived quickly to the site which was a fairly flat field but apparently not quite flat enough. Details available at [Kathryn's Report](#).



May 10, 2021 Chapter Meeting

At the May chapter meeting we were introduced to, and happy to welcome, new members **Don Wishard** (Tailwinds Flight Club member, Young Eagles flyer, and a former Ultralight pilot) and **Kelly and Susan Schmidt** who are Delta Airlines pilots and Cessna 172 owners.

Gregg Adler arranged through the EAA Speakers Bureau to have **Scott Perdue** join us from Texas to speak on UPRT (Upset Prevention and Recovery Training). Scott's father was a pilot from the early days of aviation and a WWII pilot and Scott rebuilt a Stearman that he inherited from his father. Scott became a Marine after high school, then went to college, then into the Air Force where he flew the F-15, and then he became an airline pilot from which he retired while flying the 757-800.



Loss of control in flight is a major killer in General Aviation. UPRT is not just spin training, and it includes stall training, which is not covered in depth in normal flight training. According to Scott, UPRT constitutes a combination of theoretical knowledge and flying training with the aim of providing flight crew with the required competencies to both prevent and to recover from situations in which an airplane unintentionally exceeds the parameters for normal operation or training (airplane upsets). Upset is defined as a non-intentional entry into an unexpected attitude.

Scott has a popular YouTube channel called [FlyWire](#) where you can find more information about UPRT. Look for Scott at Oshkosh parked in the North 40 with a FlyWire Banner on his F-33C Bonanza.

Also on the program for the May meeting was chapter member **Corey Carlson** presenting an update on his Sonerai project. Corey has been a member for 5 years but parental duties have made meeting attendance a rare occurrence.



Corey lives in Stillwater, is an engineer with Boston Scientific, and previously worked for Rockwell Collins and Garmin, where he was on 'Team X' which developed the G3X for the experimental market. The Sonerai was designed by John Monet, who also designed the Sonex, as a VW engine powered racer. The Sonerai has aluminum wings but rag on tube for the fuselage and empennage. Corey

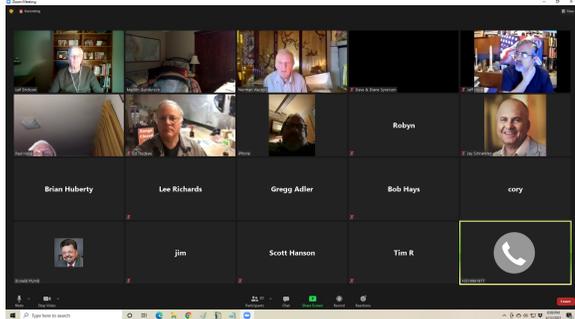
will be using a 80 or 100hp Rotax for his engine.

This is a full plans built project, not a kit, starting with metal tube and sheet aluminum that he has to shape and weld. Corey has relied on Dave Russo's book 'Construction of Tubular Steel Fuselages' as a primer for his work on welding together a fuselage from steel tube. Corey used FreeCAD to check the design strength of the center section which has critical welds.



The full Chapter Zoom meeting is recorded and available via dropbox at [this link](#).

April 12, 2021 Chapter Meeting



At the April Chapter Zoom meeting we had a builder's update from chapter member **Ed Trudeau** from White Bear Lake, and a presentation by **Brian Huberty** on Bird Strikes and Avian Radar courtesy again of the EAA Speakers Bureau.

Ed has been working on Zenith 750 kit #16 since purchasing it in 2008. This aircraft has fixed leading slats and full span flaperons (rather than separate flaps and ailerons).

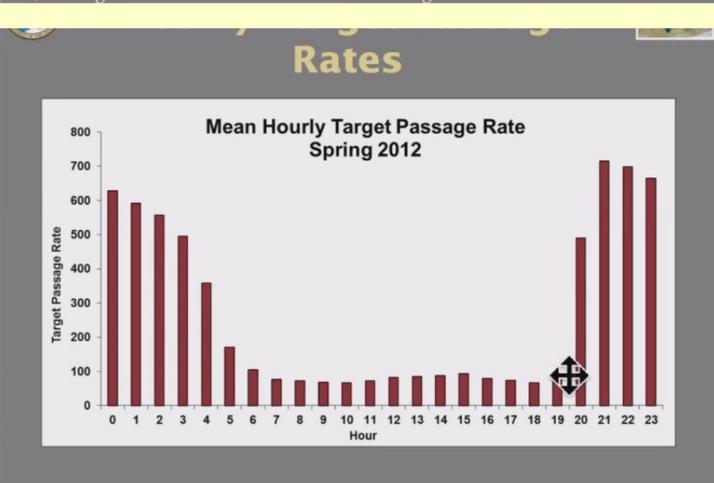
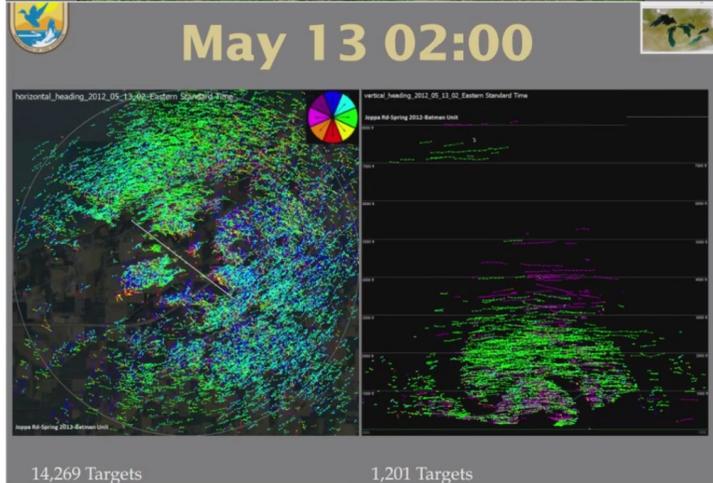
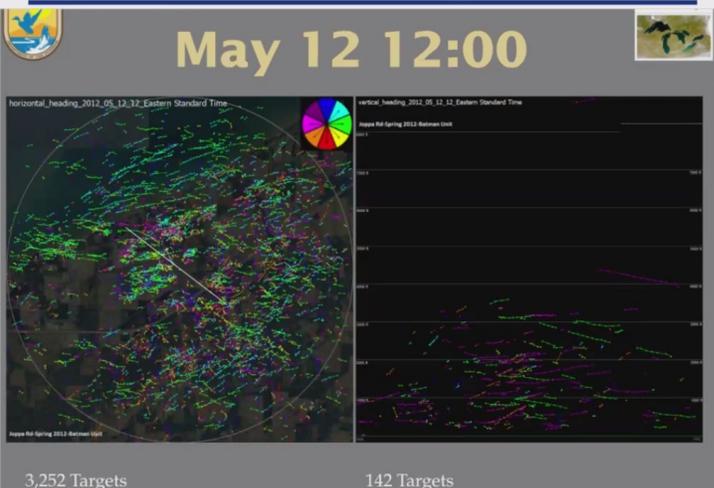
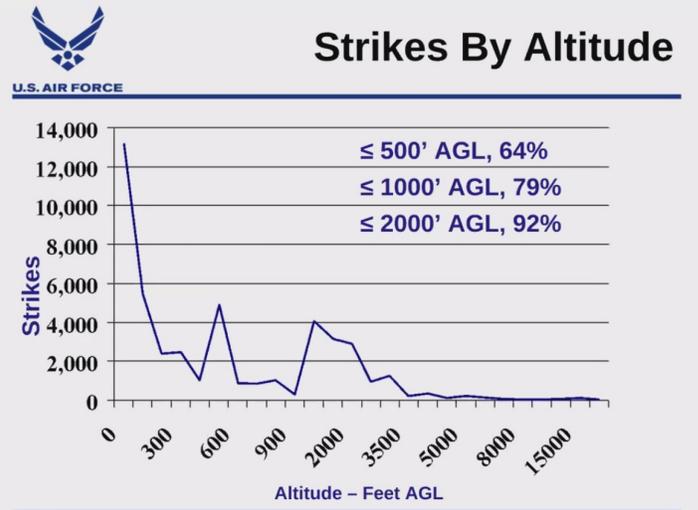
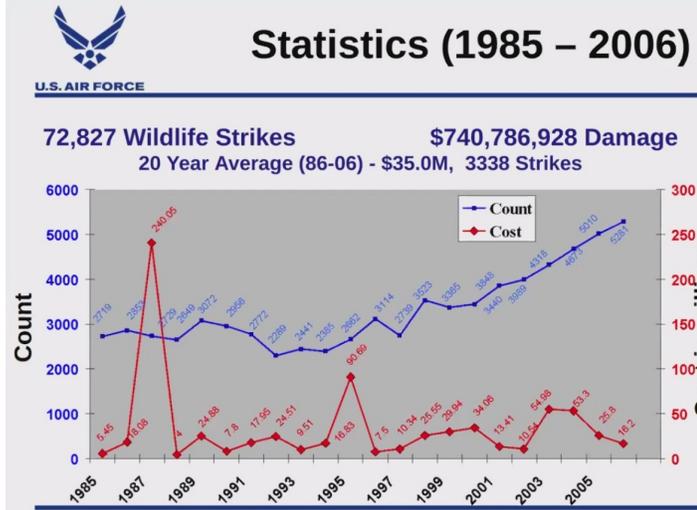


Ed has installed a 120hp Jabiru 3300 six cylinder engine with a Bing Carburetor.



Brian Huberty is retired after a career in the DNR and the US Fish and Wildlife Service. He is a Clipped Wing Cub ELSA owner and lives in the area south of the Lake Elmo Airport. Brian can usually be found at the Clamar Floats booth at the Seaplane base during Airventure.

Following are some of the slides Brian shared describing his work with radar and field work to understand where and when bird strikes are a threat. In summary the bulk of the threat is at night, below 3000', during migration seasons, but strikes can happen any time as exemplified by Flight 1549 which was during broad daylight in a non-migratory month.



Apparently migratory birds prefer night flight as it affords better safety from raptors who hunt mainly in daylight hours. A link to a recording of the full Chapter Zoom meeting is available at [this dropbox link](#).

Leaders Column

Scott Hanson is looking for pilots for the July Young Eagles event on July 10th. Contact youngeagles@eaa54.org

Bill Schanks Jr. is coordinating a Chapter outdoor social gathering on the deck for our August 8 chapter meeting. Watch your email for coming details or [contact Bill](#) if you are overcome with curiosity.

The **Metropolitan Airport Commission** (MAC) provided [this link](#) to subscribe to an occasional 21D newsletter that provides information of note for 21D airport users. Included in this newsletter are links to [ongoing drone photos](#) of progress on the 21D airport improvements underway



and a [link to a new portal](#) that lists hangars available for sale at the MAC Reliever airports.

From EAA HQ:

[New Video Shows AirVenture NOTAM Transition Points.](#) One of the updates to this year's EAA AirVenture Oshkosh NOTAM from the FAA is the addition of transition points for the general aviation arrival route. Those transition points will be activated during periods when air traffic is at increased levels. A new video shows these points and helps pilots visualize the landmarks and routes that will help ease air traffic congestion. [Watch now >](#)

Also, sign up for and see the June 23 webinar, or a replay of, [Tips for Flying Into EAA AirVenture 2021.](#)

[EAA's The Green Dot — AirVenture 2021:](#) a sneak peek at what's in store! [Listen now >](#)

Editor's 2¢ (M. Gunderson)

BasicMed / Hearing Loss

My BasicMed from 2017 expired in May so I scheduled an appointment for an annual physical with my family physician, [David Ness](#), of Parkway Family Physicians in St. Paul, a small clinic in Highland Park where my family and I have had our primary care physicians for the last 30 years. They had 3 doctors when we started going there in

the early 1990s when we lived in the neighborhood and now, due to retirements, it's down to a one doctor shop. But David is a great physician and he's a pilot, and he's happy to be able to provide BasicMed to his customers in the process of doing their regular annual physical exams. After the exam, I go online to the [AOPA BasicMed page](#) to

upload my exam report, take the BasicMed refresher briefing, and print my BasicMed Certificate.

I'm 61 now and, on the upside, my cholesterol is great, my blood pressure is good, my PSA is low and steady. On the downside, as typical for my age, my eyes have a fixed focal length so I compensate with blended bifocals, and I'm starting to experience some hearing loss.

At my physical exam four years ago, when I put the headphones on for the hearing test, I realized that I was hearing a continual low volume background tone, maybe 6KHz. It was difficult to identify the tones the test added in that frequency range. My doctor said I was starting to show some hearing loss, not huge, but something to keep an eye on. Having brought this to my attention, I realized that I was hearing this tone (ringing) whenever in a quiet environment, particularly in bed prior to sleep. This condition is called Tinnitus and it has become more prominent in the four years since I first noticed it and I now hear it as a mild but continuous background noise.

Prior to my BasicMed renewal in May, I decided to have an exam with an audiologist to learn more about my hearing loss. The hearing test showed that my hearing is really good below 3KHz and my word recognition was still 100%. But my hearing falls off a cliff above 4KHz and is essentially non-existent above 6KHz, and same for both ears. The audiologist told me the brain compensates for the lack of auditory input in that upper range by generating it's own stimulus to stave off neural atrophy resulting from no stimulus and that is what causes me to experience Tinnitus. I was told that my loss of hearing in that range indicates that the fine hairs/nerves of the cochlea (inner ear) that detect high frequency have been damaged or have died, and that this isn't just typical hearing loss with age -- this type of damage is typically associated with exposure to certain types of chemotherapy or various toxins (many found in cigarette smoke), or it could be congenital condition.

Since I'm not a smoker and haven't had chemo, after my exam I looked up what other chemicals might be associated with such hearing loss. Turns out they have a name: ototoxic chemicals, and they include Carbon monoxide, Benzene, Toluene, Xylene, and the degreaser TCE. Some of these chemicals are common in paints, adhesives, thinners, cleaners, and pesticides. They can enter the body through inhalation or skin absorption. Some are particularly lethal to the nerves and inner ear hairs that detect aural high frequency.

I'll have to say that in the course of building and maintaining multiple aircraft over the last 25 years, I've exposed myself to a lot of nasty smelling stuff, including carbon monoxide from sometimes less than perfect heating systems in workshops during our long Minnesota winters. Early on it was Poly fabric work with a lot of MEK and other aromatic solvents and paint, and then epoxy resins including some experimentation with Vinyl Esters which had a very strong odor. I used to clean parts with mineral spirits, fuel, and other solvents and often didn't use gloves. I also used to regularly clean the belly of my Cub with those kind of chems just using paper towels without gloves. My forearms are permanently mottled from pigment damage so I was clearly absorbing some of that stuff. It seems this has taken a toll on my hearing and if I could do it over I'd be more careful with ventilation, masking, and use of gloves when handling cleaning, painting, and finishing chemicals.

I share this experience with hearing loss in the hope that some of you can avoid the same result rather than learn the hard way as I have.

Some online content of possible interest:

['Why Engines Quit'](#) from Paul Bertorelli of Avweb.

[The Spirit of St. Louis](#) EAA Webinar.

The Lake Elmo Airport Advisory Committee (LEAAC)

Robyn Stoller and I attended the inaugural meeting of the LEAAC in May, organized and led by the MAC and our new airport manager Phillip Tiedeman.

Work Plan 2021-2022: Action Needed

1. Noise Abatement Plan (NAP) and Pilot Guide
2. Airport 101
3. Noise 101
4. Environment 101
5. Mobile Sound Monitoring Study
6. Monitor developments on and off airport
7. Receive updates about land-use developments
8. Receive updates about airport operations and noise complaints
9. Airport Tour
10. Runway grand-opening

This is a forum for airport neighbors and local city representatives to engage with airport management and airport users to address issues of concern as they arise. As you might imagine, aircraft noise is a topic of interest to this group, and a noise audit will be performed with a series of tests coming soon.

21D Aircraft Operations

Lake Elmo Airport In 2020

- Takeoffs and landings..... 29,799
- Rank of operations among relievers..... 6
- Number of based aircraft..... 187
- Rank of based aircraft among relievers..... 3
- Number of runways..... 2
- Runway dimensions..... 2,850' x 75'
2,479' x 75'

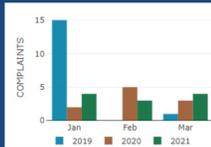


Airport	2019	2020	Change	% Change
21D	31,208	29,799	-1,409	-4.50%
ANE	71,740	70,852	-888	-1.20%
FCM	104,405	124,382	19,977	19.10%
LVN	29,835	31,314	1,479	5.00%
MIC	41,541	39,509	-2,032	-4.90%
STP	40,394	30,188	-10,746	-26.30%
Total	319,663	326,004	6,381	2.00%

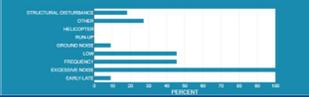
Lake Elmo Airport (21D) Aircraft Noise Complaints Q1 2021

COMPLAINTS

2021	11 COMPLAINTS	6 LOCATIONS	2 NIGHTTIME COMPLAINTS	2 NIGHTTIME HOUSEHOLDS
2020	10 COMPLAINTS	3 LOCATIONS	2 NIGHTTIME COMPLAINTS	1 NIGHTTIME HOUSEHOLDS



COMPLAINT DESCRIPTORS



21D Sound Monitoring Study

Study Scope:

- Field Measurements
 - Up to 3 locations
 - 7 consecutive days
- Modeling
 - Use FAA approved software
 - Model same 7-day period

Report

LEAAC Presentation



Q1 2021 Aircraft Operations and Noise Complaints



www.macnoise.com/tools-reports/interactive-reports

21D Aircraft Types and Complaints Q1 2021

AIRCRAFT TYPE	%	COMPLAINTS	%
JET	0.0 %	2	18.2 %
PISTON	96.1 %	9	81.8 %
HELICOPTER	0.4 %	0	0.0 %
TURBO-PROP	0.4 %	0	0.0 %
UNKNOWN	3.2 %	0	0.0 %
RUN-UP	0.0 %	0	0.0 %

[Here is a link](#) to the general LEAAC website with links to meeting agendas and minutes.

And [here is another link](#) to the full PPT Presentation for the inaugural May 2021 LEAAC meeting, some of the pages of which are copied here.