

**Experimental Aircraft Association** 



EAA

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Monthly Newsletter for EAA Chapter 44 - Rochester NY

Feb 2021

### AirVenture and SUN 'n FUN 2021 – Editor

Mark your calendars! SUN 'n FUN is set for Apr 13 - 18, and AirVenture Jul 26 – Aug 1. I'm planning on attending both, hopefully flying the RV7-A to Airventure.

News from eaa.org website on AirVenture

- **Masks** will be strongly recommended if you are unable to social distance (roughly 6 feet or 2 meters).
- Proof of **COVID vaccine** will not be required to attend.
- Increased **physical distancing** will be encouraged in all areas.
- EAA is adding significant numbers of sanitizing facilities and working with industry-leading companies for **continual disinfection** throughout the grounds.
- Theater in the Woods, forums pavilions, and other outdoor venues will operate with reduced seating capacity, with social distancing opportunities on the open grounds at that location.
- There will be fewer exhibitors in each indoor exhibit building, creating more walkways and separation between exhibitors. Additional venues on the grounds are being re-purposed to accommodate indoor exhibitors that are moved this year.
- Wherever possible, **ventilation will be increased** in tents and indoor facilities.
- In addition, look for more details on new programs for low-contact procedures for admissions, camping registration, points of entry, and other high-volume areas.
- Several **annual events** where physical distancing is not possible will not be held this year, including the Monday night concert; the Young Eagles, EAA Lifetime Member, and International Visitors dinners; the Runway 5K run/walk; and large corporate events and receptions.
- **High-demand forums** and presentations will be scheduled more than once to accommodate demand while allowing for distancing

Anyone ages 18 and under will be admitted free to EAA AirVenture 2021, as a way to introduce more youth to the possibilities in the world of flight. This effort is designed to encourage more aviation-minded families and their children to attend the event that brings more than 10,000 aircraft from around the world to Oshkosh each year.

An innovative air show format to promote social distancing will be part of EAA AirVenture Oshkosh 2021, as the afternoon air show will at times feature a split performance area that accommodates two acts flying at the same time.

The split performance areas along Oshkosh's 11,000foot flight line will be used for aerobatic displays with aircraft that have a smaller performance footprint. It will allow two acts to safely fly their rehearsed routines at the same time — one at the north end of the aerobatic box while another flies simultaneously at the south end.

"EAA is incorporating innovative ideas for our presentations and even the air shows to keep you safe in

2021 while keeping the fun factor high," Pelton said. "We appreciate your understanding that these plans will evolve in the coming months. We expect changes as we



gear up for Opening Day, so our goal is to bring you any new information regularly as soon as we confirm it. We also understand that the ultimate decision to join us is always yours, based on your personal situation and comfort level."

### Feb Mystery Plane



Scratch built from plans designed in the 70's. This example was built in1980. Details are on page 5.

### My Superbowl...In a Cessna by Tyler Mullen

Today is Superbowl Sunday. To play, it takes a lifetime of preparation for five hours on the field to earn a prestigious title. My check ride, my very own "Superbowl", is in a few days and I, too, have been preparing for this moment for as



long as I can remember. From studying 'everything airplanes' in my elementary years, hours on my flight simulator to a gift I will be forever grateful for – my Ray Aviation Scholarship - it has led to this moment.

I planned to start my flight training in April of last year but Covid had a major impact not only on my 'kickoff' but with training protocols. Obviously, I didn't let it hold me back. If I am being honest, the weather has been more of a defensive line than the global pandemic.

Leading up to the Superbowl, television sports segments review game play, strategies of opposing teams and player stats - turnovers, passing, rushing, receiving.... there's a statistic for everything. So here I am, I've made it through the season, through playoffs and am about to enter my big game.

Preparing for my check ride, I reviewed my logbook, my notes and my records, and have come up with a few statistics of my own. During training, I have flown 48 times, logging 61.9 hours for an average of 1.28 hours per flight, including 7 solo flights for 10.3 hours which averaged 1.47 hours each flight. Spring 4.6 hours, Summer 36.1 hours, Autumn 17.3 and Winter 3.9 hours. I have 2.8 hours in the flight school's Red Bird Simulator (rainy season) giving me exposure to emergency procedure protocols.

How many miles have I flown?

Flying with COVID PPE precautions

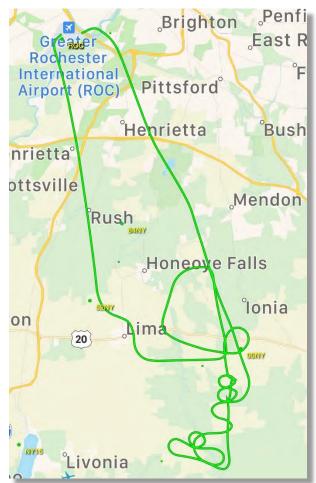
That's tough to say but as the crow flies, probably close to 1,000 in New York State; but what crow flies straight? I've crossed an international border claiming Canada as my first foreign venture and am keen to give it a go again.

I landed at Oswego County 5 times, Ithaca Regional 4, had a triple to Niagara and landed twice in Canandaigua where, once, I scored an ice cream sandwich and a peek at the maintenance depot. Surprisingly, I never flew to Ledgedale during my training – add that to my bucket list!

One morning I arrived at the airport and was almost grounded because the previous student took the keys with them. I can say, with a clear conscience, I've never done that; however, forgetting to pull the chocks....I admit to one occurrence.

I've flown with Vet, Earl, Randy, Darrin, Jerry and Whit, and including training, have operated eleven different airplanes with engines ranging from 65 hp to 185hp. I've used three headsets, gone through two 'changing of the sectionals', one FAR/AIM, almost one deer (out of season) giving new meaning to "deer in headlights". Don't even ask me where the rabbit fits in!

While a requirement of the scholarship is volunteering at the chapter it's anything but a requirement for me. Since the start of my training, I have 61 hours with BART (over 350 cumulative hours) and have participated in multiple Chapter events. EAA 44 has defined my career. My private pilot's license is just the kickoff to my future, the ball is in play and I'm moving it down the field but, I must focus on the first goal – my check ride. @flyinwithty



Cessna 172 N998RA

## Old Goat Adlib by Art Thieme

Last month I wrote that my daughter suggested that I give up driving. I checked my driver's license and saw that it was good to 2025. I'll be 100 years old by then. Not to worry. Won't be driving. Perhaps we will have the hangar then. It's January and I already have 35 letters requesting money. No wonder I get so many calendars.

I gave fruit baskets as a Christmas gift to the grandchildren. Included in them were grapefruits. My daughter thought about that and asked if the kids (they are all adults) knew what a grapefruit is and how to eat it. I'm sure they don't have that pointed, forked spoon to spear the segments. Will they peel it like an orange? Stay tuned.

I wrote about John Denver last month and my submitted article mentioned a few details about the accident. Imagine my surprise when I read the published material with all the details of the accident, including a picture of the aircraft. I must thank editor Ritson for providing all the details and making my material look good. That's what editors do – right. It's not the first time he provided pictures of planes that went with my story. Thanks to Craig for all your help!

I feel sorry for people who have to stay at home during the quarantine for the Corona virus. They need a hobby, such as building an airplane. This can keep you busy for many weeks,

months, years. Sorry that Phil Hazen is retiring from the Board of Directors. Phil

has been a loyal member for a long time and contributes much time and effort. He even tried to get me a computer long ago. Thanks for your contribution.

Our January Zoom meeting with speaker Gene Benson was well done. If I had known some of the things covered, I would have been a better pilot. Having a speaker is the way to go.

I just finished reading two articles about overhauling your engine (Kitplanes March 2021), and my brain is overloaded. The number of parts to the engine and how to handle them is mind-boggling. And parts replacement. Have an expert do that.

Take two aspirin and call me in the morning. Dr. Old Goat, out



Engine Overhaul time P&E Feb 2019

# Take Flight at the Strong National Museum of Play

The Strong welcomes visitors of all ages to its Take Flight Exhibit starting Feb 6 thru Sept 5. View large-scale model airplanes soaring overheard courtesy (courtesy of the Glenn H. Curtiss Museum) and the Strong's wide collection of toy airplanes will be on display.

Did you know that the Wright Brothers were inspired by a rubber band-powered helicopter toy? Celebrate the joy and playfulness of flight—from hot air balloons and planes, to drones and spaceships—at *Take Flight*, a new exhibit at The Strong. Learn about the history of flight-based toys with examples from The Strong's collection, explore the diverse group

of women and men that took flying to new heights, and test your flying skills at a variety of stations for the littlest aviators and the biggest kids

Visitors can learn about the contributions of Tuskeegee Airmen and Amelia Earhart and play their way through classic flying video games such as Time Pilot 2048, AfterBurner, and Apollo 14.

Walk through the history and scope of flight with a video detailing the various ways that humans have taken to the sky—and beyond!

Design a paper airplane and test your throwing skills at a distance and accuracy station.



Tickets are \$18 for people two and older, Members free.

### Flying off Snow in a Buttercup

For a pilot to add a rating, or endorsement is another signature in your logbook that says you've expanded your repertoire in some way, have a new skill or competency that allows you do to new stuff in an airplane.

No endorsement required to fly skis in America, but ski-flying in winter offers a whole new range of possible "airports", with literally hundreds of level landing sites. These landing sites are often lakes and rivers, but with obstacle fee sufficient snow cover, ski-equipped aircraft can land virtually anywhere that's relatively level.



Jeff LaChausse's 150 hp Buttercup with Datum retractable wheel ski's

Jeff LaChausse's Buttercup NX656JS is setup with retractable ski gear, the skis have a cutout through which the wheel protrudes during wheel operations. Before taxing in snow, the extension system is activated, which extends the ski downward, thus "retracting" the wheels. The wheels never move. This setup allows landing on snow, ice, grass, or blacktop surfaces.

Earl Luce had previously flown the Buttercup off snow in Minnesota. He spent a several hours teaching Jeff the intricacies of ski-flying. I was invited to experience ski-flying and flew from the left and right seat.

Taxing is interesting as there are no brakes so you have to plan ahead, and give yourself lots of room to maneuver and stop. Once on the move you need to apply nose-down elevator to take the weight off the tail and apply enough power to make the rudder effective using large deflections.

The most challenging task is turning 180 degrees at the end of the runway. Left turns are recommended due to the propellor P-factor. Full down elevator, full left rudder, and quick bursts of power are required. The quick blast is essential



Swooping down over Braddock bay. Those are not guns aiming at the helpless vehicle.

because if you keep the power on too long, the airplane will accelerate, not turn and run off the runway. If it looks like it's getting out of hand, chop the power, eat humble pie and plan on sending your passenger out to push on a strut as your power around. My motto *"If in doubt chicken out"* worked in these circumstances. Earl had to help me out on one occation. Traditional mag checks is not an option as there are no brakes to stop you back as you power up to 1,700 rpm.

Takeoff procedure is to set the flaps; trim the elevator to neutral; power up to max power and push slight forward stick to raise the tail without pitching the nose forward far enough causing the nose of the skis down into the snow. Accelerating to 60 mph takes longer than normal and easing back on the stick causes

the Butterfly to magically levitate off the ground. Flaps are retracted under 80mph and we saw climbs around 900 fpm.

Once in the air you need to take care to not exceed the ski configuration vne of 130 mph. This is easy to to do. We also learned that extending the tires must be down not faster than 80 mph as the ski tips will rise and cause uncomfortable handling characteristics.

I did two power-off stalls and both were a non-event stalling around 45 mph with a slight left-wing drop easily picked up with right rudder. I recovered glider style by offloading the wing with down elevator and no power.

You have to have good light, contrast, and shadows when operating in and out of snow runways as when you get overcast skies, and you look at the expanse of white, all shadows terrain, objects under the snow, and ditches disappear. All those features go away in flat light."

I feel a lot safer flying low and slow in a ski-plane in the winter than a wheel-plane in the summer because there are a lot more safer options to land if the fan up front stops turning.

Downwind power is reduced to 1,800 RPM, the first notch of flaps is extended at 80 mph. The final approach is 75-80 mph and the three-point landing feels like you touching down on a pillow.

Contact Earl or Jeff for an experience of a lifetime.

### Pazmany PL-4A Wikipedia

The PL-4A was designed by Ladislao Pazmany, who, as a young man, loved designing, building, and flying airplanes, and who had then embarked on an illustrious career in aeronautical design engineering.

The PL-4A is a sport airplane intended to answer the need for a well-designed, allmetal airplane that is easy to build, easy to fly, with low initial and operating costs, and folding wings so that it may be towed behind an automobile and stored at home. It is a low-wing airplane, VW-powered, with a closed or open cockpit large enough to accommodate even very large persons and a generous baggage compartment. A "T" tail configuration improves rudder effectiveness and prevents the stabilator from interfering with the folded wings. Top Speed is 120 mph, stall 39 mph, and Rate of Climb 650 fpm.

A wing with a high aspect ratio of 8 is used, which in combination with a large diameter, slow turning prop provides good performance even at high altitude airports. The ailerons have differential travel to minimize, adverse yaw. They are hinged at the bottom skin with standard piano hinges, as in the PL-1 and 2, providing smooth airflow over the top of the "down" aileron, and a good gap seal. The mass balance is concentrated in a lead weight attached to an arm extending into the wing box.



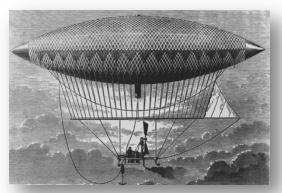
PL- powered by a C85 Series Continental

The PL-4A won the "Outstanding New Design" and "Outstanding Contribution to Low-Cost Flying" awards at the 1972 EAA Fly-In. By 2000 more than 50 had been built and flown.

### Steam Flight By Whitebeard the Pilot

Our story starts with the first successful lighter-than-air flight with Henri Giffard in 1852. His balloon filled with hydrogen, suspended below a steam plant, with the pilot stoking a coal-fired boiler which turned a twelve-foot propeller. Below the gondola hung an anchor with barbs (landing gear?). His machine-made turns flew fourteen miles and was a success.

A later and larger balloon split open, crashed and burned. Both aeronauts survived (death where is thy sting?) Giffard spent his entire life with balloons until his death in 1882. The internal combustion engine dominated aviation starting in 1903 with the Wright Brothers and continues until this day.



Henri Giffard's steam-powered airship

A little over 100 years ago in the "NY Times" appeared an article about Abner Doble, CEO of "Doble Steam Motors", who announced that his company "could build a light steam plant capable of flight."

Doble started producing high-end steam automobiles, better performing than most cars of that era, about the same time "Stanley Steamer" was closing its doors. Doble's lighter steam engines prompted research on aviation use.

Abner hired Bill and George Besler of the Besler Family who owned the "New Jersey Central Railway" under the tutelage of Abner and his brothers. After they moved to Emeryville, California, in 1929 they learned all they could about lightweight steam power. The Besler's became officers of the Doble Company after investing heavily in it.

Eventually, finances became controversial and the Besler's were kicked out. They sued and the court favored the Besler's who now owned the company, now known as the Besler's Corporation". Amazingly, Abner Doble remained with the corporation to work with the Besler's. The project went secret for three years until April 1933 when the Besler's announced a demonstration of steam flight to the media.

As the steam-powered Buick parked at the Oakland Municipal Airport, the Besler's were mobbed by reporters. Bill donned his helmet and goggles and sat in the pilot's seat of the Travel Air 2000 biplane. After a turn of a switch, five minutes later steam pressure started rotating the propeller with no hand spinning needed.

After a normal take-off, and when he was 200 feet over the crowd, he waved and shouted, "Well, how does it look?". The reporters could hear him over the nearly silent aircraft; the most notable noise was from the prop and the swish of the strut wires. The flight lasted about fifteen minutes.

The steam engine the Besler's created weighed 180 pounds, the condenser and boiler 300 pounds. The boiler heated 10 gallons of water to 750 degrees and 1200 P.S.I. The propeller turned 1,625 rpm's and could range about 400 miles on those 10 gallons of water.



Besler 150 hp steam engine

Following the demonstration flight, the project experienced no development. Other companies tried light steam power but with little success. The experimental engine by the Besler's was sold to Japan in 1937 and then disappeared. The Travel Air was destroyed in a storm. By then, the brothers had returned to railway development and made a fortune.

The Besler Corporation built a second steamer at the request of the U.S. Navy in the 1950s for a STOL program. They bench-tested it, then installed it in a boat (what a crime). Bill Besler later modified it to nearly match the original, also in the 50's, before donating it to the Smithsonian Air and Space Museum.

On the scene came an English steam engineer with a plan to build a lightweight engine for aircraft. Ronald Wighthouse designed and built the "Opis" Engine. His object was to install it into a Rutan Vari-Eze during the 1970s but he couldn't find an airframe for installation nor resources to build it. He died with his dream in the 1990s. A call to the Rutan Factory Historian indicated no record of a request for information existed.

The Besler's will forever hold the honor for the first heavier-thanair steam-powered aircraft flight. A number two position is still open. With 88 years of progress in lightweight materials, modern electronics and engineering could overshadow those dry years of steamless aviation. Creating a simple light system, giving the world a quieter and environmentally friendly airplane would really be a huge plus for the EAA. Reference Book "Steam In The Air" by Maurice Kelly; Publisher: Pen and Sword Books, Ltd. 1988; Magazine: Historic

Aviation Feb 2017; Article: "The Dream of Steam" by John J. Geoghegan;

#### Pipistrel Electric Airplane in Demand By Jim More AOPA

Pipistrel reported swift sales in a January press release, with 111 Velis Electro aircraft delivered to date, and another 70 on order as the year began. Pipistrel announced the company is adding factory staff, "a second shift to take advantage of being the only certified electric aircraft manufacturer in the world," the news release states. "Pipistrel is cooperating with dozens of OEM manufacturers, implementing Pipistrel electric propulsion into their fleets." The company reported that 2020 was the first year in its history that it produced more electric aircraft than petroleumpowered models. The electric powerplant was certified separately by European regulators, allowing it to be installed on airframes made by others.

The Velis Electro's liquid-cooled motor converts 57.6 kilowatts of electricity into 77 horsepower turning the fixed-pitch propeller, with 24.8 kilowatt hours of energy stored in a



Two seat Pipistrel Velis Electro

pair of batteries. The system reduces noise, is powered up with four switches, and requires no warmup before takeoff, according to the model's online documentation. Flight training provider AlpinAirPlanes was the launch customer, purchasing a dozen aircraft for 10 locations around Switzerland, each location equipped with photovoltaic panels capable of charging enough batteries to deliver 12,000 hours of flight instruction per year.

Featuring noise levels of only 60 dBa, Velis Electro is considerably quieter than other aeroplanes and produces no combustion gases at all. Its revolutionary powertrain is entirely liquid-cooled, including the batteries, and demonstrated the ability to withstand faults, battery thermal runaway events, and crash loads as part of the certification process. Velis Electro can operate in cold, hot and rain.

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### **Member News**

#### Earl Luce

Earl and Jeff LaChausse are making good progress on the experimental Piper J-5 Cub.

New rudder pedals, window frames and heel brakes have been

manufactured and installed.

The elevator trim is attached. A carbon fiber tail spring is mounted, and boxes of hardware shipped from Aircraft Spruce is ready to be installed.

The work is being done on Jeff's heated hanger. With the temperatures in the teens the last three weeks, I'm sure the heating bill is going to make his wallet a lot lighter.

The Lycoming engine is undergoing a major overhaul by a friend of Earls in Tennessee.



#### Craig Ritson

Mandy and I took a two-week vacation to Florida in January where we enjoyed the warm cloud-free weather and fewer mask-police.

I was fortunate to get to fly an RV-12, RV6-A, and a Kitfox. All three are wonderful examples of aircraft that can be constructed by amateur builders at home.



ULPowered RV-12 on approach to Massey Ranch Airport

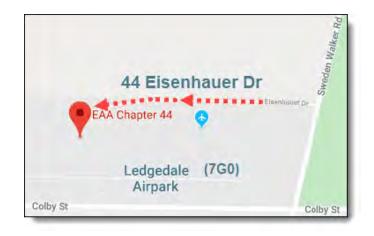
Please send member news or articles to <u>newsletter@eaa44.org</u>. This does not have to be aviation related news.

### **Chapter 44 Monthly Activities**

All activities take place at the Sport Aviation Center (SAC) and are free and open to the public

Check the <u>website</u> for scheduled activities already there

**Sport Aviation Center** 44 Eisenhauer Dr. 14420 Brockport's Ledgedale Airpark (7G0)



### Zipline Catches Bathawk SnowBrains Industry News

On September 28<sup>th</sup>, 2018 a Jabaru powered Bathawk aircraft flew into a zipline in Pilanesberg South Africa. Thankfully the aircraft got hung up on the cable, which allowed the pair of occupants to slide away with minor injuries. They were stuck 300 feet off the ground for five hours.

The most critical part of the rescue involved a careful and calculated transfer of the occupants from the aircraft seats (where they were secured in the interim via their seatbelts) to rescue harnesses and delicate repositioning until they were hanging on the cable, free from the aircraft fuselage. The aircraft was taken down later the same day.



Note the occupants sitting in the cockpit



