



Serving the Port Angeles & Sequim Area

EAA 430 FLYER

JANUARY 2021



Dedicated to having fun with airplanes and promoting General Aviation



CHAPTER CHATTER

With President Ken Brown

In this space in 2020 I said:

"2020 is going to be a great year and with your participation, we can achieve great things together. Come on board and ride this glory train for the good of the chapter and the aviation community."

As it turned out, I am not a prophet or sage. We could not see the dark cloud on the horizon and what an impact it would make for us all. To say this year will be different is an understatement.

While many of our activities will slooowly return, we will have to be very vigilant to maintain the necessary safety precautions. I hope we will get vaccinated and can resume a more interactive chapter life style.

The emphasis in 2021 will be like a three-legged stool. One leg is the Interacting, maintaining an active flying pilot group with interesting and challenging places to go. This is high on the list. The second leg, equally as important, is expanding the Young Eagle Program with flights when possible, along with workshops, R/C building and flying. The third leg of the stool is expanding to the Ultra-Light community as members and flying partners.

As you may already be aware, the February Northwest Aviation and Trade show in Puyallup pulled its schedule for 2021. Looking for alternative aviation fixes and educational programs may be Sun-n-Fun April 13-18 2021 in Lakeland, FL or EAA Air Venture 2021 scheduled for July 26 - August 01.

Until we can safely meet in person, ZOOM will be our channel to stay connected. VMC under the direction of Ray Ballantyne will meet monthly on the second Wednesday so mark your calendars. Chapter Gatherings will continue on the last Saturday of the month @ 1000.

Members, all of our meetings/gatherings are open to everyone. Please invite friends and introduce them at the meeting. Do you have a suggestion or would like to present a program? We want to hear from you.

I am excited to see how this new year turns out. I am excited we have many active pilots flying to destinations. I am excited to see a youth program blooming and expanding. Most of all I am excited to be sharing time with all of you, brothers and sisters in aviation. We are a unique group for sure.

On a closing note, please get your chapter membership renewal completed this month. It makes it so much easier on the Treasurer and Membership. Ken

IN THIS ISSUE	Page
Chapter Chatter (Ken Brown)	1
Calendar of Events	2
One of our own	2
Aviation From My Rocking Chair	3-4
Wright Brothers Master Pilot	5-7
Welcome New Member	8
Welcome Todd & Sheila	9
EAA Homebuilders Week	10
Monthly Zoom Gathering Minutes	11-12
VMC Club (Ray Ballantyne)	13
Board & Directors	13

- JANUARY 2021**
- VMC Club Meeting January 13 7:00 pm
2nd Wednesday of the Month
ZOOM MEETING
 - EAA Chapter 430 Board Meeting
January 22 9:00 am
ZOOM MEETING
 - EAA Chapter 430 Chapter Gathering
January 30 10:00 am
ZOOM MEETING

Editor’s Note: In the April 2020 EAA newsletter, we featured Rachel Sallee as one of our Women Aviators of the Month. The following is an update from Rachel on her current status in the USAF. Congratulations to this amazing young lady. We are so proud of her! Rachel is currently flying a C-17 transport “traveling the globe.”

Rachel Sallee, One of our own Young Eagles.



As many of you know, the last couple years I've been pushing, training, studying, and finally interviewing to hopefully join the ranks of Air Force test pilots. I am overwhelmingly grateful to announce I'll be heading to Edwards AFB later this year to follow that dream. So incredibly grateful to all of the support, guidance, and grace that has led to this opportunity. My unending thanks to the people that have helped me get here - I will not let you down. Never thought I'd want to go live in the desert, but we've never been ones to turn down a challenge. God is good.





Aviation From My Rocking Chair

By Rick Vaux

Auto Fuel and Octanes. Is it smoke and mirrors?

Hello Chapter members.

Have you ever said or written something you just knew was going to cause controversy? Well, I'm about to! For the next 3 months, you and I are going to discuss Autogas vs Avgas, and I fully expect as many opinions as we have members. I originally wrote this series in 2002, at a time when the GAO listed at least 45 Autofuel blends. Now there are at least 140 different recipes. In that time, Avgas went from 3 blends (80/87, 100/130, 100LL) to just 100LL.

Let me get my feet wet with what Mr. John Szmanski and the Zeltex Corp. called, "Octane 101". "It is vitally important for we as pilots to have clean fuel with the proper octane for the powerplant we trust our lives to. With more and more Autofuel STCs all the time, let's take a look at how Octane is determined and some of the possible problems that might be encountered".

Octane rating of gasoline refers to the fuel's anti-knock quality, and Autogas is rated differently than Avgas. Two CFR(Cooperative Fuel Research) knock test engines are used to test Autogas according to ASTM D2699 and D2700. D2699 refers to the Research Octane Number (RON) and is the essential index of Acceleration Knock. D2700 refers to Motor Octane Number (MON) and is a knock index for High engine speeds. The MON method differs from the RON test by using heated fuel mixtures, higher engine speeds, and variable ignition timing, all of which mean more stringent demands on the tested fuel. The MON is typically 8-10 octane numbers lower than RON. According to ASTM D2700, the Autogas MON octane is similar to the Avgas rating up to 100 octane. Now, here is the rub; Autogas octane rating is the average of RON and MON $(R+M)/2$ and that formula will be posted on the pump. You will have no way of actually determining if the MON octane number meets your engine requirements unless you have documentation or a means to test on site.

Contrary to what some people think, high octane gasoline is not more powerful than the low octane stuff. High octane fuel does feature a higher ignition temperature and a slower burning rate. High ignition temperature reduces the chance of Detonation from cylinder hot-spots and helps minimize Pre-ignition. A slower burn rate allows more efficient use of the fuel's pressure buildup to be converted to mechanical energy instead of heat. Gasoline with octane and ignition temperatures too low will cause Pre-ignition. Typical ignition temperatures for Autogas are: 300deg.c (87 octane), 400deg.c (93 octane) Avgas is blended to ignite at 500deg.c.

O.K., gang, before I put this column to bed for the month, let's go over what Pre-ignition and Detonation are and how they relate. A combination of high compression and high cylinder temperature causes a fuel charge to ignite BEFORE the sparkplug fires. In a car it causes that dreaded "pinging" heard during uphill climbs with low octane fuel. Unfortunately, in an airplane you can't hear it due to noise of everything else. Detonation occurs after the sparkplug fires. Normally, when fuel is ignited, an even flame path develops across the combustion chamber and produces a smooth temperature and pressure increase which pushes the piston down. Detonation happens when secondary ignition sources such as red-hot carbon bits and cylinder hot-spots cause 2 or 3 flame paths to develop. The result is an instantaneous fuel charge burn with a violent increase in cylinder temperature and pressure.

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Using fuel with lower than recommended octane for your engine can cause serious damage to pistons, valves, cylinders, and bearings in very short order. Low octane fuel ignites quickly and produces a pressure/temperature peak that can exceed the engine design limits. In addition, the more the engine is run, the worse the problem becomes. Heat buildup can not be dissipated fast enough from the cylinder, causing more pre-ignition (hot spots) and uncontrolled detonation.

One more item. If your engine is designed for low octane fuel, high octane gas will not improve it's performance. The fact is, the retarded timing and slower burn rates of high octane fuel can and will cause burned exhaust valve and seats. This happens because the fuel charge is still burning when the exhaust valve opens. Valve and seat erosion occurs very quickly.

Well, Troopers, I'll let you go for this month. Next time Continental and Lycoming will check in, and after that it's Autogas STC, EAA, and your turn.

Rick Vaux
TC 4130 (gotta love that number!)

PRESENTATION OF WRIGHT BROTHERS MASTER PILOT TO RAY BALLANTYNE

By Lisa Ballantyne



Lisa Ballantyne presented the Wright Brothers Master Pilot award to her husband, Ray Alan Ballantyne at our EAA Gathering on Saturday, December 26, 2020. The Wright Brothers Master Pilot Award is the most prestigious award the FAA issues to pilots that are certified under FAR Part 61. This award is named after the Wright Brothers. The world over recognizes Orville and Wilbur Wright as the first persons to successfully fly a heavier than air, controllable powered aircraft. To be eligible for the Wright Brothers Master Pilot Award, a pilot must meet the following criteria:

- The effective start date for the 50 years is the date of the nominee's first solo flight.
- Be a U.S. Citizen.
- Hold a U.S. CAA or FAA pilot certificate
- Have 50 or more years of flying experience; Up to 20 of the required years may be as a U.S. Military pilot. The 50 years may be computed consecutively or non-consecutively.
- And the nominee cannot have had an airman certificate revoked.

The following is the EAA 430 presentation made by Lisa:

Ray achieved this milestone of having flown for 50 years on his 66th birthday in April of this year which made him the youngest Master Pilot to receive this award.

Ray was born into an aviation family. His father was a troop glider pilot who met his mother at Avenger Field in Sweetwater, Texas where she was receiving training as a Woman Air Service Pilot. After the war, Ray's dad always had a single engine airplane. Ray would fly with him every chance he got.



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Ray learned to fly in a rented Piper Cherokee 140 and could fly by himself (soloed) on his 16th birthday before he could drive himself (driver's license). During college, Ray flew his father's 1969 Piper Comanche C and received his instrument rating, commercial and certified flight instructor licenses. Ray owned the Piper Comanche after his dad's passing and flew it for over 10 years, most of those in Alaska.

In 1977, Ray began his career as an Air Traffic Controller with the FAA at the Cutbank, Montana Flight Service Station. For the next 34 years, Ray worked for the FAA in various facilities. He worked in two flight service stations, five airport traffic control towers three radar approach controls, one air route traffic control center, two regional offices, and FAA National Headquarters in Washington, D.C. During this time, Ray was flying his own airplanes. He also flew as a Part 135 Air Taxi Pilot part time while living in Bethel and Fairbanks, Alaska. Ray flew various single and multi-engine aircraft for over 10 years in Alaska.

After leaving Alaska in 1999, Ray was a part owner in a Beechcraft Bonanza S-35 before purchasing his GlaStar GS-1 in 2009.



Ray has modified the GlaStar with conventional gear and large tires to accommodate his love of flying into many of the backcountry airstrips in Washington, Oregon, and Idaho. It is a summer passion and begins as soon as the snow clears.

Ray was a rookie pilot with less than 100 hours when I started flying with him in 1973. Today he has accumulated over 3025 hours of flight time without an accident, incident, or violation.



Ray's passion for aviation is expressed through his encouragement, recognition and honoring of deserving employees, friends, and family. He enthusiastically shares his love of aviation with everyone and especially has a heart for the next generation of fliers.

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Children are drawn to airplanes and Ray will take the time – no matter where - to let them sit in the plane telling them the joys of flying and letting them touch things.

He is an avid participant in the Young Eagles program of EAA and has given 43 flights. He is an encourager to pilots of all ages to fly their dreams and fulfill those bucket list items. He is a strong advocate for education and works to encourage pilots to continue learning about their aircraft and the environments in which they fly. Ray exemplifies all the Wright Brothers Master Pilot Award implies.



50 YEARS OF FLIGHT
66TH BIRTHDAY
APRIL 10, 2020



[Click here for the video presentation](#)

WELCOME NEW MEMBER (Jeanne Scribner) & ERNIE FLEW HIS SUPER CUB



Jeanne Scribner

I am a recent transplant to the Sequim area, moving here from Philadelphia a little over a year ago. My first exposure to the world of general aviation was through my late husband and his brother who were both private pilots. My two nephews and my oldest son are also private pilots.

I was spending my time in Philadelphia being a loving grandmother to many preschool grandchildren. My days changed dramatically when I joined my partner, Ernie Hansen, in Diamond Point. We have spent many hours in Ernie's Globe Swift. We have attended many unofficial EAA fly-outs together in the Swift as well as enjoying a wonderful weekend of airplane camping in Cavanaugh Bay with our friend, Ray Ballantyne.

Ernie and I spent much of our first year together completing his experimental Super Cub. It took to the skies on its maiden voyage on December 22, 2020.

Despite the hard year Covid has given us all, I am thankful for all the wonderful people and new friends I have met through my aviation experiences with Ernie. Jeanne



My Experimental Super Cub is finished! After five years of work, on December 9, 2020 the FAA DAR (Designated Airworthiness Representative) arrived at Diamond Point Airport to perform the Airworthiness Inspection and issue my Operating Limitations! This went smoothly, and was a positive experience. Following the receipt of my Airworthiness Certificate and Operating Limitations, the real work started; obtaining insurance. But that's another story.

My first flight was December 22, 2020. I have done 5 flights total to date (1/9/2021). These flights have mainly focused on engine break-in, as the engine was newly overhauled. The plane flies very nice with no rigging or control issues. I am looking forward to obtaining more flight information once the engine break-in is completed.

If you hear a mostly white Super Cub droning around the area...Look Up! Ernie



WELCOME NEW EAA MEMBERS TODD & SHEILA TAYLOR



Todd and Sheila were childhood sweethearts who found each other again some 40 years later and married in 2018.

Sheila's first ride in a light plane was an early Christmas gift when Todd took her flying in mid-December - she loved it!

Todd returned to general aviation after a 20+ year hiatus that was spent raising his 3 kids. He saved money from working as a hand at nearby farms during high school when minimum wage was \$3.15/hr then plunked it all down to learn to fly. He was taught stick and rudder by an old Canadian bush pilot (RIP Gord Thomas). He started flying at age 15 and remembers soloing in an Aeronca Champ on ski's in whiteout conditions in a snowsuit even before getting his driver's license at age 16.

Sheila was there to help Todd with studying for ground school and fondly remembers reading *'From the Ground Up'*. After graduating from College and getting a real job, he finally had enough money to complete his ticket just after his 28th birthday. He was recruited from his hometown in Eastern Ontario shortly after that to work in the Silicon Valley and soon bought a Rockwell-Commander with lofty plans to build hours and travel the world. Did he mention kids?

They travel regularly between Sequim and Victoria so now they are in the market for a good bird that will satisfy their mission for regular cross-border hops and extended cross-country adventures (Oshkosh perhaps?).

Sheila is an Alum and works at the University of Victoria. Todd works as a Support Engineer and is a part-time Realtor with John L Scott. Together they have 5 kids and 3 grandchildren.



Homebuilders Week – Online Event Starts January 26

By Charlie Becker, EAA Homebuilt Community Manager

An online opportunity to learn about all aspects of building your own aircraft

EAA is launching a new online learning event for aircraft builders: (www.EAA.org/HomebuildersWeek). It will be five straight days of educational forums covering a broad spectrum of aircraft building topics. It will launch on Tuesday, January 26, 2021, and run until Saturday, January 30, 2021. The live online presentations will be open to everyone interested in building their own aircraft. Sessions will start at 1 p.m. CST and run until 8:30 p.m. CST daily.

This event is an opportunity for a new person to jump in with both feet and learn a lot about the wonderful world of homebuilding. We will cover areas like getting started successfully and techniques when building with sheet metal, composites, steel, and wood. But it won't be just for the newbie; we are offering in-depth talks on panel planning, engine selection, FAA certification, flight testing, and selling a homebuilt aircraft. There will be something for every builder, whether you are just starting out, knee deep in a project, or just received your airworthiness certificate — it is going to be a great learning opportunity.

EAA is working with industry experts, kit manufacturers, and other subject matter experts to provide top-notch material for builders. The sessions will be live and allow plenty of time for attendee questions. Recordings will be archived and available to EAA members for review.

The launch of EAA Homebuilders Week coincides with the 68th anniversary of the founding of the Experimental Aircraft Association in 1953. Those founding members of EAA lit the fuse on the homebuilt movement that provides affordable access to aircraft ownership and today has spread worldwide.

EAA Chapter 430 Monthly Zoom Gathering Minutes

December 26, 2020



Date: December 26, 2020 ZOOM meeting. 25 Zoomers attended including guests John Ballantyne in Delaware, Glenn Ballantyne in Colorado and David Fagre, Dir of Ops Wright Air Service, Fairbanks, AK.

Ken opened the gathering at 10:25 am late due to a bad sign-in link on the email invitation to the participants.

Approved Minutes: The minutes for November meeting were approved.

Financial Status: Total funds \$9,189.10

Checking	\$ 519.36
Scholarship:	\$6,237.71
General Funds:	\$2,432.03

Correspondence:

WA Covid-19 Phase II continues. All meetings will be Zoom

Board of Directors Report: Transition meeting for new board member Rick Vaux, VP, has been completed, and he was welcomed. Ernie Hansen was thanked for his service as the outgoing VP.

Ken reported that the Smith-Miniplane finally left the area headed to CA.

Chapter Awards: Ken announced the following annual awards:

Ernie Hansen V.P. & Tech Counselor
 Ray Ballantyne Secretary & VMC lead
 Mary Brown Treasurer & Newsletter Editor
 Al Gross Build-n-Fly (Sim-n-Fly) Young Eagle Coordinator
 Tracy Singer Bolton Facebook / Young Eagle Coordinator
 Barry Halstead Fly out coordinator/ Tech Counselor
 Madeline Patterson Membership Chairperson
 Deb Cox Programs Coordinator
 Dave Miller Scholarship Coordinator
 Ted Smith Tool Crib
 Andy Sallee Web Editor
 Bud Davies Young Eagle Coordinator
 Harry Cook Tech Counselor
 Rick Vaux Tech Counselor

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EAA Chapter 430 Monthly Zoom Gathering Minutes

Chapter Projects:

Build-n-Fly: Sim-n-Fly – Al said the one-on-one simulator and model airplane flying is going well, and the program has been well received. There are two young people waiting for good conditions to fly.

Projects:

Ernie Hansen said the experimental Cub first flew on December 22, 2020. It was hands free flying and it performed well.

Ray Ballantyne is still waiting for his engine to get to the overhaul shop.

Jim Bess is reworking the exhaust on his Rotax engine which powers his powered parachute.

Dave Woodcock described the rebuilding of his WWII L4 (Piper Cub) after an incident.

They found corrosion, missing parts and poor workmanship. It is now totally repaired, has been repainted, and is now flying better than ever.

Dave Boerigter reported on his new avionics panel in the Mooney. (remember to look out the window)

Fly outs will begin in January weather permitting.

Program: Presentation of the Wright Brothers Master Pilot Award

The Wright Brothers Master Pilot award was presented to Ray Ballantyne by his wife Lisa (who was representing Seattle FSDO). This award is named after the Wright Brothers, the first US pilots, to recognize individuals who have exhibited professionalism, skill, and aviation expertise for at least 50 years while piloting aircraft as "Master Pilots". Lisa talked about Ray's career and flying history and his dedication to aviation. As Ray soloed an airplane on his 16th birthday and received his Master Pilot award on the same day 50 years later, he was the youngest Master Pilot (for a while, anyway).

Ken ended the meeting at 11:10 a.m.



WHAT: VMC - Visual Meteorological Conditions (flying VFR - visual flight rules)

Discussions involving flying airplanes visually led by Ray Ballantyne

WHERE: ZOOM Meeting

WHEN: 2nd Wednesday of the month starting at 7:00 pm.



WHO: Anyone interested in flying is welcome to attend. It is a great place to meet new people and have some fun!

WHY: The one hour meetings use real-world scenarios to engage members and allow a free exchange of information that improves awareness and skills. Designed to provide organized “hangar flying” focused on building proficiency in VFR flying. We hope to create a community of aviators willing to share practical knowledge, nurture communication, improve safety and build proficiency.

2020 BOARD AND OFFICERS

Chapter Phone Toll free 877-EAA-0430 (877-322-0430)

Position	Name	Phone Ext	Email Address
President	Ken Brown	1	president@eaa430.org
Vice-President	Rick Vaux	2	vicepresident@eaa430.org
Secretary	Ray Ballantyne	3	secretary@eaa430.org
Treasurer	Skip Brown	4	treasurer@eaa430.org



Class II Directors

Build-n-Fly	Al Gross		build-n-fly@eaa430.org
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Scholarship	David Miller	8	scholarship@eaa430.org
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