Congratulations Chapter 1387!

In case you missed it, I just wanted to highlight on reaching the Silver Chapter Recognition level!

This program was created to recognize Chapters that have demonstrated outstanding commitment to general aviation. Developed in partnership with EAA's Chapter Advisory Council, it's based on 10 criteria that are consistently found in active and engaged chapters. Each is worth a point, and there are three levels of recognition: bronze (7 out of 10), silver (8 out of 10), and gold (at least 9 out of 10). One of the criteria we missed on, was not owning a facility to conduct our chapter meetings/events. We may have to challenge that deduction based on the many that reside at the Troy Airpark!

For the March meeting, we have a special guest speaker: Capt. Bill Jagust discussing "Things I have learned after 40 years of Flight Instructing". Please bring a light appetizer to share after the meeting.

In this issue, Frank Baldwin was kind enough to submit an article on the "Piper Cub and Reed Clip Wing Conversion" which was printed a few years ago in the Piper Flyer and is certainly worth the read. (And great pictures too Rob!) Thanks for submitting Frank!

Special shout out and "thank you" to our esteemed Web Editor at Large for the Chapter – John Roser for getting our site converted and making the transition to the new EAA format. For all the latest news & reference material, please check out https://chapters.eaa.org/eaa1387

On a friendly note, a few of us had an opportunity to catch up with our West office members – Jerry and Ruth Folkerts. They were in town for a few days reminiscing about the good ole Midwest....Sorry Jerry, no mountain PIREPs around here. Please stay in touch and you'll have to send us a Colorado update on your projects. (Continued on page 11)

EAA Chapter 1387
2020 Calendar of Events

Monthly Chapter Meetings
2nd Sunday, exceptions*, 2-3:30p

~~1/12~~	7/12
~~2/09~~	8/09
3/08	9/05*YE
4/19*	10/11* Weber Farm
5/02*YE	11/08
6/14	12/12* 4-7p, Christmas Party

Young Eagle Activities (Tentative):
5/02 at Mexico Mo
9/05 at Washington Mo

Other Important Dates;
March 31 – April 5 Sun 'n Fun
July 20 – 26 AirVenture

Meeting Location:
Lincoln Co. Health Dept.
Large Conf. Room (South End of Bldg)
5 Health Department Drive
Troy, MO 63379

In the early 1930s businessman William T. Piper became involved with the Taylor Aircraft Company. C.G Taylor designed a light aircraft with steel framework, tubular struts, rubber shock cord landing gear and wood wings with spruce spars. The first production Cub, called the E-2, was soon flying with the A-40 Continental engine of nearly 40 horsepower. With a gross weight of 925 pounds, it took off in a few hundred feet and flew at nearly 75 miles per hour. The flyaway price was $1,325 and was licensed by the Department of Commerce in 1931.

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The ubiquitous J-3 appeared in 1937 sporting an improved 115 cubic inch A-40 with the full 40 horsepower, balanced rudder, more instruments and an aluminum sleeve around the exhaust stack to provide some heat for the cabin and carburetor. Brakes and a steerable tailwheel soon appeared and the familiar "Cub Yellow" paint with black trim. Engines were being improved, new designs from Franklin and Lycoming were providing from forty to fifty horsepower. By 1939, all three engine manufactures were producing 65 hp engines which made the stock Cub, as we usually see it today.

The Reed Clipped Wing version came in the 1950s and was flown as an airshow mount by many of the performers of that era. About 40 inches are removed, not from the tips but, from the root of each wing in accordance with the Reed Aircraft Modification Manual. This modification allows operation in the FAA Standard Category. If you look at the aircraft closely you see that

this Cub version is smaller in span, with the original ailerons reaching nearly to the fuselage, giving a remarkable increase in roll rate and authority. The smaller aft lift strut is replaced with a larger and stronger front size strut. Often the engine horsepower is increased for additional performance. Our Cub sports a Continental with 85 horsepower giving it a noticeable 30% increase, which is a nice boost.

Let's preflight and fly this true legend of sport aviation. Our walk-around inspection starts with a look inside at the simple functional airplane. The magneto switch on the left side, above the sliding window, is off initially. Fuel valve on the left side is turned on. The engine is in plain view with four jugs sticking out for our inspection. The oil dipstick is on the right side of the Continental and reads full at four quarts. Heel brakes control those fat 8.00 x 4 tires that are inflated to 12 psi. The Piper service manual cautions that operation when the tires are soft may cause creep with consequent damage to the valve stem. This will cost you about $100 for a new tube. Time to enter the Cub, this requires some planning. The tandem seat Cub is soloed from the back seat only. If you are of moderate height, you may place your left foot inside on the floor and using the diagonal heavy tube overhead just lift yourself in. A shorter pilot may use the step below the door and no feet on the lift struts, please. Getting into the front seat is a little more difficult. One entry method requires sitting on the door still, putting your right foot on the tire, while using the overhead tubes to lift yourself in. The front seat is also smaller and may even seem a little cramped for the average size pilot.

Now it is time for engine start. "Switch on, brakes set and throttle cracked!" If the engine has been run recently or primed, one pull of the prop will start it. The back seat view is somewhat limited until the tail is raised, so stretch your neck to have a good look forward before you taxi. Performing S-turns will keep you clear while en route to the takeoff runway. We have the original heel brakes, and the Cub has really poor brakes, but the gentle nature of this trainer makes taxi maneuvering a piece of cake. Solo is from the back seat for proper center of gravity. If it is windy, use the effective flight controls for proper wind corrections and you will easily keep the aircraft under positive control.

After the brief pre-takeoff check, taxi into position

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and let the airplane roll forward slightly to align the tailwheel. Now move the stick back for good tailwheel response, smoothly add power and in 300 to 400 feet we are airborne. The Reed Clipped Wing version is limited to 1100 lbs. maximum take-off weight, normal J-3s are allowed 1220 lbs. so the lighter weight airplane accelerates faster and gets off Troy Airpark's smooth turf strip in short order. You will see climb rates from 500 to 1000 feet per minute at 55 to 60 mph depending on total weight and ambient temperature. Of Mr. Earl Reed's list of a dozen modification advantages the increased roll rate and increased strength made this a very popular Cub model.

We are soon up to a suitable altitude for the beginning of our orientation, which means slow flight and stalls are in order. We find the carburetor heat control on the right side of the cockpit and pull it back to the on position and then reduce the power. Airspeed is soon down to the fifties and we find that the Clipped Wing Cub handles very responsively at 50 to 60 with no unusual flight characteristics. Add power, resume normal speed, do clearing turns and let's look at a power off stall. Nose up, 15 to 20 degrees above the horizon, carburetor heat on, power off and hold that altitude until we see the indication of a stall. The nose drops gently; rudder has good authority which we will appreciate later during hammerhead turns. The stalls and slow flight maneuvers show that the short wing modification does not detract from the Cub. In fact, it still has the flight characteristics of an excellent trainer airplane.

It is time to climb higher for some fun flying, basic acro. The short 28 foot span and original ailerons, now nearly full span, give the aircraft a fairly fast roll rate. It is not Pitts roll rate however, but I would estimate roll rate slightly better than a Citabria or Decathlon. Let's do the basic aileron roll. Clear the area, add some power, lower the nose and accelerate to a least 100 mph. Pitch the nose up to 20 degrees, which will prevent excess altitude loss, and neutralize the stick. Full aileron is then easily applied and hold full aileron. These control inputs must be done quickly, since the nose is up, speed will decay. Slight forward stick while inverted will keep the nose up. As you roll to level flight, neutralize the ailerons and pull up to normal flight.

The loop is next on our list of basic maneuvers. To loop the Clipped Wing Cub we need about 110 mph and + 3.5 G will give you the pull-up for a nice round circle. Depending on the horsepower of the engine installed, a slight dive is generally needed to attain the entry speed. The rear seat flying position of the Cub is good for observing the wing trailing edge with relation to the horizon, to keep the circular pattern vertical for the maneuver. Establish straight and level with the ball centered and bring the stick firmly back while looking forward. As the nose rises above the horizon, apply full throttle and keep the wings level with ailerons and the circular path vertical with the rudder. As the horizon drops out of sight over the nose, the wings are checked against the horizon. Nearing inverted, the stick pressure is reduced slightly to keep the loop round. Notice the decreased pressure on the seat as the G load is decreased. As we become inverted, we reduce the back pressure more and as we start down the backside of the loop airspeed and rpm will increase so decrease the throttle and look back through the skylight for the horizon coming into view. Remember, that as we increase power at the beginning, we need right rudder to compensate for engine torque and P-factor. When we later reduce power, take out that right rudder. As speed increases going downward, opposite rudder will be required. We must now start increasing back pressure on the stick to keep the loop round and prevent excessive speed on the return to straight and level.

For the hammerhead turn, line up over a straight

"Switch on, brakes set and throttle cracked!"

road, put the nose down in the now familiar shallow dive and get a least 100 mph. Pull the airplane up smoothly to the vertical while applying full throttle. Maintain the horizon reference out the side windows. You may need a little forward stick to keep the aircraft vertical. Check your airspeed, as it is dropping rather rapidly, at 50 apply hard left rudder and keep alignment by using your outside reference road. Controls are immediately effective. Start the rudder back to neutral as the nose passes through the horizon. As you begin the vertical dive, ease off the throttle and at 70 to 80 smoothly apply back pressure to start the nose up. Add power to terminate the maneuver in level flight at about 100 mph.

Landings in a Cub are just plain fun in this docile and gentle aircraft. The regular Cub stalls at under 40 and the Clipped Wing version just over 40, so use an approach speed of 60 mph. If you have been flying a regular Cub you will notice a big difference in the sink rate on the final approach. With almost 7 feet less wingspan and about 40 square feet less area, the Clipped Cub has a more positive descent rate. A little power will make the approach easy to control on the desired angle and will allow you to put it right on the spot. The higher wing loading also lets you handle higher wind conditions. In ground effect the clipped Cub lets you round out and make those 'kiss the grass', gentle landings that will stroke your ego.

The Clipped Wing version of the Cub is an excellent trainer because it is responsive, crisp on the controls and has a better power to weight ratio. Having trained students in small and large aircraft, I appreciate an aircraft that responds nimbly when you need to recover from a student's maneuver that was possibly not performed to perfection.

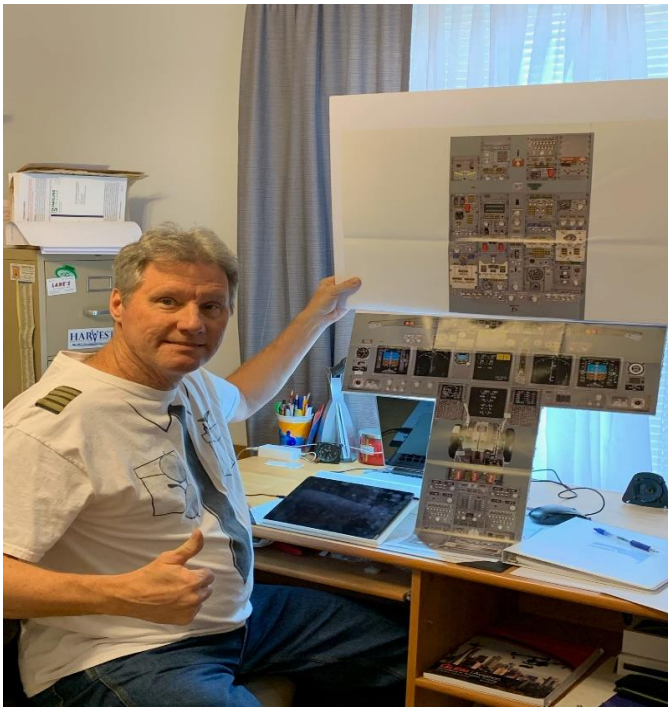
Frank Baldwin, ATP, CFII, A&P is a retired airline pilot and enjoys flight instructing in taildraggers, gliders, twins, etc. He spends his free time developing Troy Airpark, a sport aviation community near St. Louis, Missouri and flying his other joy, the Pitts.

2020 03 MARCH

LEARNING AS WE GO
BOEING B-737 GROUND SCHOOL
mr. bill

After my last flight of the McDonnell Douglas DC-9-80 on September 05, 2019, I was scheduled for this Boeing Ground School at the Training Academy but….I previously was trained to facilitate a Diversity and Inclusion Class at the day job because with all the many retirements and the rapid hiring pace at the airline, THINGS HAVE CHANGED: IN THE WORLD, IN THE FLIGHT DECK, AND IN THE CABIN OF THE AIRPLANE. The yearlong program was to be attended by ALL airline personal. The special thing about the program for the pilots was, that it was taught by pilots. So my mission was to be one of the 20 facilitators tasked with presenting that presentation. More on that later.

With the program up and running it was just a matter of time before I would be assigned a class date and last week I was given 2020 03-14 for the B-737 transition program. There is the NEW way of teaching. I first must complete 31 hours of Online Ground School which covers all the aircraft systems on the iPad. Not a bad way to do things at a self-pace style. Also if you miss something or it is not clear you just hit the rewind arrow and the subject matter on that slide repeats and you are good to go!



Then I will show up with "BELLS ON" and sit in the left seat next to the Virtual Procedures Trainer (VPT) which is a lighted panel display of the B-737 flight deck to learn my "Procedures and Flows" from a Flight Crew Training Instructor on 03/14. I may have a NEW to the airline First Officer who may have been hired off the street, hired from the military, or "flowed up" from one of the regional airlines that supply the big place with pilots. There are 9 days of this training. Usually 4 days on, then 2 off, then 5 more on to complete the ground school portion. The last day being your 100 question written exam. 85% is passing.

We will spend time in a more advanced VPT called a VFD- a Virtual Flight Deck. Think of it as a simulator that does not move. Then we walk into the "stimulator" and put all those Flows and Procedures into practice. The simulator is where we will perfect our skills, practice ILS approaches (Instrument Landing System) both with two engines working but mainly single engine approaches. After 7 days of 4 hours a day flying, two hours as PF-Pilot Flying and two as PM-Pilot Monitoring, we will go for a Maneuvers Validation Ride. Think of it as a "Pre" Checkride. The following day will be the Boeing 737 Type Rating ride. Another 4 hour adventure of all the skills we have learned during the first two hours. The last two hours is an actual flight that will have a few surprises that we will have to deal with in real time and then land the airplane as in an actual flight.

So, if you do not hear or see me in the area for the next two months, know that I am in the school house perfecting my skills so I can fly the B-737-800 NG Next Generation.
What about the B-737 MAX you say? Well as soon as the powers that be figure out "What training is required to transition to the B-737 MAX," I will be placed in our MAX simulator and be thoroughly checked out to fly that famous machine.

Also, dates, times, and simulators are subject to change. With ALL the new/recurrent/requalification training going on things are backed up, slowed down, and occasionally broken.

Until then, Keep the Blue Side UP!

Q? Why can't the third runway be built at the London Airport?
A: It is illegal because of current climate change laws.

(Continued from page 1)

On the airplane front – I finally finished the conditional inspection on the RV7 and was able to get it out & about over the beautiful weekend. This inspection was more about having the prop overhauled, and what to do when you have Slick mags reach the recommended 500 inspection window. The CS prop turned out fine and operates as advertised. The Mag(s) – I ended up installing a "Surefly" in place of the left impulse mag and the difference is quite noticeable. I've only scratched the surface of the benefits, and immediately noticed the quicker starts. Looking forward to more of those….

Since it's still only March, and like many New Year's resolutions, I want to encourage all of our members to get involved and use your time, talent and expertise to assist each other on the never-ending learning journey in aviation. We are fortunate to have exceptional aviation talent and with additional training opportunities available from the EAA Webinars (below) and the FAASTeam, everyone has the ability to learn and pickup something new this year.

All the best!
Joe V.

In case you missed this one from the Jalopnik news….

A British Airways 747 crossed the Atlantic Ocean from New York to London — in record time. The commercial jet reached speeds of 801 mph as it rode a jet stream accelerated by Storm Ciara, breaking the subsonic Trans-Atlantic record set by the 787-9 Dreamliner in 2019, by 25 mph and 17 minutes.

At four hours and 56 minutes, the plane arrived at Heathrow Airport 80 minutes early. The only plane that has been faster is the retired Concorde airplane that made the flight in two hours and 52 minutes.

The plane was helped by an unusually strong jet stream within Storm Ciara that reached speeds of 260 mph, which allowed the plane to move faster than the speed of sound.

British Airways said, "We always prioritize safety over speed records. Our highly-trained pilots made the most of the conditions to get customers back to London well ahead of time."

Read more about this record breaking 747 flight in this article.

EAA gratefully acknowledges the support of Aircraft Spruce and Specialty Co. for their generous sponsorship of EAA webinars.

3/11/20	7 p.m. CDT	Stabilized Approaches and Go-Arounds **Qualifies for FAA WINGS credit.**	Prof. H. Paul Shuch

Statistics show that 47 percent of all general aviation accidents, and 40 percent of fatalities, occur during the final approach and landing phases of flight. In this FAA Safety Team WINGS Award webinar, Prof. Shuch discusses the two best tools to counter such accidents: stabilized approaches, and properly executed go-arounds. Join this webinar to learn how to prevent landing accidents.

3/17/20	7 p.m. CDT	How to Read and Call an Aerobatic Sequence **Qualifies for FAA WINGS credit.**	Jim Bourke

Ever wonder how to read all those Aresti squiggles that are used to draw aerobatic sequences? It's not as complicated as it seems. Jim Bourke will explain why these diagrams make perfect sense, what terminology we can use to talk about them, and how to read them out loud with ease. This is a great seminar for the budding aerobatic competitor or enthusiastic volunteer.

3/18/20	7 p.m. CDT	ATC and You: Communicating With Confidence and Clarity **Qualifies for FAA WINGS credit.**	Richard Kennington and Bob Obma

Communicating with air traffic controllers can be intimidating if you don't know the language. Instead of avoiding it, pilots can learn what they need to know to fly safely and efficiently in controlled airspace. Air traffic controllers Richard Kennington and Bob Obma will give participants the knowledge and insight they need to do just that in this FAA WINGS qualifying webinar.

3/24/20	7 p.m. CDT	Chapter Chat: Donations and Contributions to Chapters	Patti Arthur

Tax attorney Patti Arthur discusses the legalities, tax benefits, and the potential pitfalls when accepting donations of cash or property. She will discuss donations of completed aircraft, as well as partially built or unbuilt kit aircraft.

3/25/20	7 p.m. CDT	Medical Certification Q&A **Qualifies for FAA WINGS credit.**	Tom Charpentier and Dr. Stephen Leonard

EAA government relations director Tom Charpentier and Aeromedical Advisory Council chair Dr. Stephen Leonard will discuss common certification problems, navigating the special issuance process, and BasicMed. After the presentation, remaining time will be spent with a Q&A session answering your questions.

4/1/20	7 p.m. CDT	Cylinder Work: Risky Business **Qualifies for FAA WINGS and AMT credit.**	Mike Busch

Aircraft engines feature bolt-on cylinders, and cylinder replacement is routinely performed by mechanics. But the incidence of catastrophic engine failure following cylinder work is disturbing. In this webinar, Mike Busch A&P/IA describes the multiple perils of cylinder replacement and what can be done to mitigate the risk.

4/8/20	7 p.m. CDT	You Just Got Your Pilot Certificate — Now What? **Qualifies for FAA WINGS credit.**	Jim Bourke and Marianne Fox

A webinar for the newly minted pleasure pilot. You've done all the work to get your pilot rating. Great job! But what comes next? Jim Bourke will provide ideas, help you set goals, and challenge you to grow as an aviator. Avoid getting into a rut and practicing the same skills over and over. Expand your horizons and learn to trust yourself as a pilot by understanding the risks and rewards of flying!

How Can We Help?

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Helpful Links:

https://www.eaa.org/eaa

https://chapters.eaa.org/EAA1387

https://www.faasafety.gov

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