Brrrrrr – Must still be Winter!

Like many, I'm beginning to get a little cabin fever and looking forward to some warmer weather. Hopefully, only February to go and then the Midwest sunshine will soon take hold.

Think February – Think Safety – In fact, any weekday ending in "y" – think Safety! It's all about safety and we've all been hearing a lot about this lately in the current events. Given the New Year and the cold weather keeping some of us on the ground, what better time to remind ourselves as a Chapter to ensure safety is on the forefront of minds for any project we undertake – within the Chapter or outside in our own family life, a safety mindset should always be followed to accomplish our yearly goals and priorities.

To this point and to help keep us on that path, Randy Ottinger from the FAASTeam who last visited us in Sept of 2018, will be attending our Feb 2020 meeting to help us think about our own personal safety in everything we do, or plan to do as a Chapter this year.

All of us should be continually learning and the FAASTeam has an abundance of training opportunities and guidance in many areas of interest where we can do better and it's just a click away.

As a recent example for myself, while doing the conditional inspection on the RV, I've come across a few wiring inspection challenges that made me think a little harder as to why was this item installed the way it was? My specific issue was about how individual wires or bundles are routed or installed and what kind of separation should they have to other structure hard points, mechanisms or things like fuel tubes or other permanently installed equipment?

I have a number of dated reference materials to use as guidance on what I could or should do, but I was interested in what's the latest info available on the Web that may also enlighten me. I was interested in the latest available training, from reputable sources that safely emphasize the best available methods.

In the aviation community – and especially in the EAA, we are always learning something new!
(Continued on page 10)

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 Conference Room (South End of Bldg)
5 Health Department Drive
Troy, MO 63379

Aircraft Maintenance Technician: Salary, Duties and Requirements
Sep 25, 2019 (Submitted by Gale Derosier)

Learn about the education and preparation needed to become an aircraft maintenance technician. Get a quick view of the requirements as well as details about schooling, job duties and certification to find out if this is the career for you.

Aircraft maintenance technicians perform a variety of duties that include installing and removing aircraft components, conducting repairs, and performing routine inspections. Some 170 schools offer programs approved by the Federal Aviation Administration (FAA). Voluntary licensure may provide a competitive edge in a field forecast to experience little to no employment growth over the next several years.

Essential Information
Aircraft maintenance technicians perform inspections and repairs on aircraft engines and airframes. They also service electrical and hydraulic parts, such as starters, fuel pumps and generators. While some aircraft maintenance technicians learn on the job, many train at an FAA-approved school.

Required Education	High school diploma and on-the-job training or FAA-approved training program
Other Requirements	Optional licensure or certification
Projected Job Growth (2018-2028)*	3% for all aircraft and avionics equipment mechanics and technicians
Median Salary (2018)*	$62,920 for all aircraft mechanics and service technicians

Source: *U.S. Bureau of Labor Statistics

Salary Info for Aircraft Maintenance Technicians
According to the U.S. Bureau of Labor Statistics (BLS), aircraft mechanics and service technicians earned a mean annual wage of $65,230 as of May 2018 (*www.bls.gov*). Earnings are affected by whether or not maintenance techs work for a major airline, as well as the type of training received. Graduating from an approved school tends to earn techs a higher starting salary than other means of training, such as learning on the job or through military service.

Aircraft Maintenance Tech Duties
Aircraft maintenance technicians are trained to adjust aircraft engines and pneumatic systems, remove and install aircraft components and diagnose problems. Some of their duties include checking electrical systems, repairing pilot static systems and performing regular preventive

inspections. Technicians examine aircraft fuselage (the aircraft's main body) and landing gear for cracks or leakage. They repair or replace defective aircraft parts and check completed work to ensure that it meets quality standards.

Requirements for Aircraft Maintenance Techs

Education
According to the BLS, the Federal Aviation Administration (FAA) has approved about 170 schools to prepare aviation maintenance techs. These schools provide training in aviation maintenance, avionics and aviation technology. Students can enroll in associate's or bachelor's degree programs. Training programs typically include courses such as mechanical drawing, electronics, computer science, physics and mathematics. Trainees can often specialize in areas such as information technology, aerospace electronics or maintenance management.

Certification
Graduates from approved schools are eligible to take the certification examinations given by the FAA. Specific certifications include the airframe and powerplant (aircraft engine and propeller) mechanic certifications; a combination of the two is called an A&P certification. Applicants must have at least 30 months of experience working with both systems to apply for the combination A&P license. Testing consists of practical and oral tests given by an FAA examiner.

Continuing Education
Due to advances in technology and the complexity of aircraft systems, it's necessary for aircraft maintenance technicians to take training courses throughout their careers. The ongoing training required to maintain certification ensures that technicians' knowledge remains up-to-date. Aircraft maintenance technicians can complete an associate's or bachelor's degree program accredited by the FAA. They can then seek FAA certification. Certification includes completing an accredited program, work experience, and passing examinations.

www.youtube.com/watch?v=TCThd0Vr0cQ

VANS, A Little History…
(Submitted by Frank Baldwin)

Richard (Van) VanGrunsven an engineer established Vans Aircraft, Inc. in 1970. The first kits were offered in 1973. In the last several years new RV airplanes have taken to the sky at the rate of 1.5 per day. Recently Van's said over 10650 RV aircraft have been completed and flown!

First came the one seater RV-3. It had outstanding performance and reasonable cost which made it an instant success.

Customers then demanded a two-place Vans with similar performance. Vans responded with the RV-4. Specifications list a 192 mph cruise with 160 hp at 75% at 8000 feet. Tandem seating made for lower drag, good visibility and overall sportiness. The RV-4 has become the second most popular Van's, until the RV-6 came.

My checkout in RV-4, N371FZ gives an example of the Van's good flight characteristics. The owner gave me a briefing on the V speeds, I observed his take off and landing from the rear seat. We flew for 30 minutes and landed. He then had me take the front seat and after a briefing I proceeded to do the same as he did, but solo. It was great and I soon decided it was time to change airplane brands! This all took place at Sullivan Field (27LL) runway 28, turf 1950 feet long. The flight was a pleasure! Not long after that I decided to trade my ten year favorite and the Thorp T-18 was gone, being replaced by our very user friendly RV-6, N707BF.

I had certified this aircraft in 2009 built by an A&P IA and was one of the lightest RV-6 I had seen, no paint and a wood prop empty weight was 950 lbs. Light weight adds to performance and my partner and I were very pleased to fly it.

In the late 1980s the market shifted to touring rather than pure sport. In response Van's developed the side-by-side RV-6. The RV-6A with nose-gear soon followed.

Frank with his RV-6, N707BF tucked in for photos by Robb Gessert

In 1995 Van's introduced the RV-8 and the nose-gear RV-8A. Tandem seating, but larger and more room than the RV-4 with optional higher power. With 200 hp @ 75% cruise was 212 mph according to factory information. My testing of a beautiful new RV-8, N308R proved it was the fastest but still handled like an RV. The RV-8A has been touted as "…an affordable T-34 – but with better performance.

The Harmon Rocket was initially a variation of the RV-4, later the RV-8 was used to convert to this aircraft. The basic changes included more horsepower from a Lycoming O-540 and decreasing the RV-4 or RV-8 wing of 23 ft. to 21 ft. 10 in. span for more speed and agility. RV-8 empty wt. went from Van's 1120 to plus 1200 lb. on the Rocket II. A friend bought one a few years ago and I had the pleasure of delivering N540LL to him and giving him training at our glider field (MO39) at Silex, MO. Arriving there I put Jack in the front seat and we had a very pleasant hour or so of landings and take-offs. It was just like flying an RV-8 and his plane had regular pedals in the back instead of the bad "pegs" for safer back seat operations. Van's in Washington use an RV-7 for training safety, the side by side CFI now has good visibility.

In 1999, Van's flew a new model emphasizing simplicity and efficiency over speed and aerobatics. The RV-9A combined the RV-6 side-by-side cabin with a completely new wing, longer and lower wing loading. The RV-9A was a fun flying machine as well as an excellent cross-country airplane. The RV-9 tailwheel version came in 2002.

In 2001 Van's brought out the RV7 and RV7A, a much easier to build successor to the RV-6. Wing span, useful load, cabin space and especially fuel capacity, now 42 gallons were all increased. Engine options include the 200 hp Lycoming. The RV-7 flies very similar to the RV-6 or RV-8, with the same excellent handling and aerobatic capabilities.

2003 saw the first four seat design, the RV-10 with typical Van's (and aircraft industry) aluminum monocoque and solid rivet construction. Power is provided by six cylinder Lycoming and Continental engines. The tanks hold 60 gallons of fuel, enough for 4 hours at 200 mph. Using economy cruise at 175 mph gives an endurance of over 5 hours, close to 900 mile range.

AirVenture 2015 had an RV-10 powered with the same jet engine used by Sonex but with a propeller, the Czech TP 100. This engine has a single radial compressor and single turbine with FADEC. Basic engine weight is 40 lbs. but the TP model is 129 lbs. and that may include prop, much less than the Lycoming O-540.

The RV-12 first flew in 2006 and is presently a very popular homebuilt aircraft eligible for certification in the Experimental Light Sport Aircraft category. It is sold by Van's in kit form and as a complete ready to fly aircraft.

AirVenture 2012 displayed the new RV-14 which incorporates all the company has learned from years of producing RV-7, -8, -9, -10 and –12 kits according to Van's Kent Scott. Only the tip up canopy is available on the RV-14 and it is made simpler and easier to build. The two piece bubble comes pre-trimmed eliminating about 50 hours or work. Scott estimates the fuselage is 2 – 2 ½ inches wider that the RV-7. You sit taller with lower canopy rails so RV good visibility gets even better. Powered by Lycoming's 210 hp IO-390.

Frank Baldwin is a retired airline pilot and retired Master Army Aviator who enjoys flying. Passing along the skills to fly as the holder of a CFI in airplanes, helicopters and gliders gives him pleasure. He has flown many types of helicopters and airplanes thru B747. His RV-6 partnership is for fun and he has tested and instructed in RV-4, RV-6, RV-7, RV-8, RV-12, and a Harmon Rocket.

"A GOOD, THOROUGH PREFLIGHT ESPECIALLY SINCE IT HAS BEEN SITTING ALL WINTER"

(Submitted by Mr. bill)

Traveling down to DFW one day the man sitting next to me on the flight asked if I was a CFI (Certified Flight Instructor) and I said, "Maybe?" He shared with me that he was a CFI-Helicopter and his student had just done this to the machine……..

In an effort to make a quick getaway with the helicopter the tail tie down was still attached and at lift off, brought the helicopter back down to the ground. "So captain, what do you tell your students?" "Well, I always walk around the aircraft twice. Usually when the student is getting into the airplane because there is ALWAYS something that distracts us pre-flighters from the task at hand."

During the PRE-FLIGHT: Yeah, I forgot this…or the engine needs oil….or the line-boy wants to ask you a question…..or someone else stops by the hangar and interrupts a perfectly good pre-flight.

Looking back over the years I have seen planes:

-taxiing out with the pitot cover still on the plane's pitot tube (airspeed indicator).

-the engine primer open. The "smoke" from the extra fuel during combustion let me know that something was wrong.

-the tailwheel aircraft adding a lot of engine power trying to taxi with the tail of the airplane STILL tied down and an FAA Pilot Examiner in the back seat!!! The one I have never seen was the tow bar still attached as the plane taxied out. Ahh but Ms. Google who has photos of everything, had this one…

The glider gang is not immune from this mishap.
The RED tail wheel dolly was NOT removed before flight. The wing runner did not catch it either!
Though this much weight at the end of the aircraft really makes for a small weight and a BIG imbalance problem. How could anyone miss that?

And the BIG BOYZ have their problems too! This maybe the one where during push back of the jet from the gate we pilots start the right engine. Sometimes the engine stays in "low" idle and it was customary to push the throttle up an inch of travel to get the engines idle up over 50% N2 (The power section of the engine.) In this case the throttle was pushed "full forward" by the co-pilot and when that engine responded, it went to 96% thrust! The jet moved forward and overpowered the tow vehicle, and it slide under the right front of the jet. This airframe was repaired and the jet flew "one" more time to the desert for retirement.

2020 SAFETY MISSION
The FAA is seeing more instances these days with "distractions" in the flight deck. Also the FAA has seen an uptick in EXPERIMENTAL aircraft accidents this past year. "There were 52 fatal accidents in EXPERIMENTAL AIRCRAFT. This was an increase of 8 from the previous year and surpassed the FAA and industry's "NOT TO EXCEED" goal of 47."
So let us EAA people help each other out with these situations. Please do not be afraid to call a Technical Counselor or a Flight Advisor to look over your aircraft or to help you through some

"flight situation" that you maybe concern about. I had a newbie tell me the other day that he just received his instrument rating and everything was "cool with his instructor and with the FAA Examiner on board." By NOW he realizes that the next flight will be "just ME and that knee board with the chart and instrument plates….well that is going to be a bit scary." I told him I would be his Safety Pilot. (So I can be scared along with him!)

Another set of photos that I received this month was of a multi-engine aircraft pilot that was NOT ready for one of its two engines "to be pulled to idle at 80 mph" and it went left into the grass instead of having the right engines thrust reduced to idle, and have the rudder pedals manipulated so the aircraft went straight down the runway to a nice stop….on the runway! The same story goes for those tailwheel pilots who have to keep "the nose going straight down the runway so the tail will follow." The thing to do here is to travel up and down the runway several times to "get your feet dancing again" and then take off for your three take off and landings to a FULL stop for your currency.

So the moral of all these stories are to take your time during pre-flight. If you stop during the pre-flight…..start back at the beginning and complete the pre-flight. One friend leaves his gloves at the spot that the pre-flight was interrupted.

To assure a "complete" pre-flight walk around the airplane a second time and remind yourself of the oil level, and the fuel level in each tank. Assure that the wing lockers, the baggage doors, the nose storage area, and the tie downs are AS THEY SHOULD BE.

When entering the cockpit put the fuel tank selector on the fullest tank, THEN. Not before the take-off.
And speaking of fuel, the draining of the fuel tanks is what I like to do FIRST in a pre-flight. I then know that if the aircraft is moved during the pre-flight, which could disrupt the fuel (and water) in the tanks, I have FIRST attempted to drain the water out of the tanks before any disturbance of the fluids.

Q? What long range airplane was built to escort the B-29 bombers?
A: In 1947, a P-82 flew more than 5,000 miles from Hawaii to New York, without refueling.

Q? What company is requesting a 10 Billion Dollar loan for their aircraft manufacturing business?
A: Boeing

https://finance.yahoo.com/news/boeing-closes-10-billion-loan-174825628.html

(Continued from page 1)

I researched the FAASTeam Web site and immediately found on-line training material on "Wiring & Installations" which was even available for WING credit too.

The training info is current and up-to-date and does take advantage of the latest material available. I completed the online Wiring & Installation course which was an overall good refresher from my A&P days. The course was also supplemented with up-to-date Stein Air YouTube videos showing proper techniques and info for splices/terminations/wire types and later insulation types available.

All this training is available to ensure what we do is held to latest standards and that all maintenance or inspections are safely conducted. Take the time, do a little research and you might find yourself learning something new as well.

As I write, I'm still finishing up my conditional inspection on the RV7 which has taken longer than normal. This can easily roll into unscheduled maintenance, or for some of us, we just like to take a little more quality time to tidy up the things that should be addressed. Looking forward to this month's meeting.

Since it's still only February, 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 FAASTeam, everyone can learn from and pickup something new this year.

Fly & maintain safely!
Joe V.

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

Registration is required, and space is limited.

Date	Time	Title	Presenter(s)
2/5/20	7 p.m. CST	Bolted Joints in Tension **Qualifies for FAA WINGS and AMT credit.**	Mike Busch

Threaded fasteners (bolts, screws, and studs) loaded in tension are used to hold cylinders onto crankcases, connecting rods onto crankshafts, and Bonanza wings onto the fuselage. Such bolted joints are so ubiquitous that we take them for granted, but we shouldn't. Owners and mechanics often don't appreciate just how crucial it is for these fasteners to be tightened properly, and why. Maintenance expert Mike Busch explains why "preload" of these fasteners is all-important, and why using a torque wrench may not be the best way to achieve it.

2/11/20	7 p.m. CST	Tips & Tricks for Recording In-Flight Videos	Martin Pauly

In this webinar, Martin Pauly shares some of the lessons he has learned over the years of recording his flights and turning them into videos for his aviation YouTube channel. He will cover a variety of related topics, such as the camera and audio equipment, what causes propeller artifacts and how to eliminate them, recording sound from the radio and intercom, and the use of music in videos.

2/12/20	7 p.m. CST	Removing Winter Rust and Spin Avoidance **Qualifies for FAA WINGS credit.**	Gordon Penner

Looking forward to a great flying season? Join IAC member Gordon Penner as he gives some tips to get current and knock off the rust from your flying skills that may have developed over the winter. Gordon is a master CFI-Aerobatics, specializing in emergency maneuvers training (EMT), aerobatics, tailwheel, and gliders. He will also vividly describe techniques for spin avoidance during this FAA WINGS qualifying webinar.

2/13/20	7 p.m. CST	Become a Better Chapter Leader – Presidents/Vice Presidents	Charlie Becker

Chapters Director Charlie Becker provides insights on the necessary tasks associated with the president and vice-president positions, as well as tips on chapter management and critical due dates for chapter-related events.

2/18/20	7 p.m. CST	EAA Flying Start: A Great Way to Grow Your Chapter	Serena Kamps

Join EAA Chapters' staff as we discuss how to host a successful Flying Start event and recent improvements made to the program. Start planning now to be one of the chapters hosting a Flying Start event on International Learn to Fly Day on May 16 or any time this year. Flying Start is an opportunity to introduce new participants to aviation and get them involved in their local EAA chapter.

2/19/20	7 p.m. CST	Vans RV Maintenance Common Questions **Qualifies for FAA WINGS and AMT credit.**	Vic Syracuse

Building on the December 11 webinar titled Van's RV Maintenance Gotchas, RV builder and DAR Vic Syracuse provides a follow-up presentation. In this one, he highlights and clarifies common questions, discusses new maintenance issues not covered in the previous webinar, and of course includes a question-and-answer period after the presentation.

2/25/20	7 p.m. CST	Chapter Chat: Tax Exempt Basics	Patti Arthur

This webinar will cover the basics of tax exempt status for EAA chapters. Patti Arthur, a tax attorney with many years of experience helping EAA chapters, will help you understand the basic rules of tax exempt and charitable status.

2/26/20	7 p.m. CST	Bang for the Buck: Affordable Aircraft Building	Tim Hoversten

Tim Hoversten, technical aviation specialist at EAA HQ, shares information about designs you can build without a kit, which can lead to significant savings. Put the savings in your pocket, or use for added upgrades to make your dream airplane even better; building from plans can be the best bang for the buck!

2/27/20	7 p.m. CST	Become a Better Chapter Leader – Secretary/Treasurer	John Egan

Chapters Manager John Egan provides insights on the necessary tasks associated with the secretary and treasurer positions, as well as tips on chapter management and critical due dates for chapter-related events.

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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