April 2020

EAA Chapter 81

Tucson, AZ





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Cl

Chapter 81 Skywriter

Annual Dues \$20

Checks should be made payable to EAA Chapter 81 and brought to a chapter meeting or sent to the Treasurer:

> Eric Nelson 10270 N. Krauswood Ln Oro Valley AZ 85737

<u>Do not</u> send payment to the newsletter editor!



These handsome chapter 81 patches are available from Eric Nelson when you cough up money for your dues.

EAA Chapter 81 Meeting April 18, 2020 -10:00 hrs has been canceled.

Considering both the current guidelines regarding the COVID-19 (Corona) virus, and the chapter 81 demographics, we are canceling the upcoming meeting on April 18, 2020. We will evaluate the environment next month and decide if we will hold the May 16, 2020 meeting.

> Click on the link below to see aviation events around Arizona

Arizona Aviation Events

Dave Jaksha

Ag - Atomic number (Z) 47

Hey, guys.



I case you haven't been over to the home page of the Chapter 81 web page lately, we have a new icon on the page header.

The EAA mother ship recognizes three levels of achievement for chapters. Gold, Silver and Bronze. In 2019, 214 chapters were awarded one of these levels of achievement.

Throughout 2019 EAA monitored various chapter activities such as Young Eagles, IMC/VMC clubs, technical counselor support, pancake breakfasts, chapter leadership development, and more. The chapters that showed a high level of engagement in each of these activities were recognized via the Chapter Recognition program.

Chapters are scored on a basis of 10 points. Chapters archiving between 7 and 10 points are recognized by a badge. Chapter 81 accumulated 8 points and was awarded a Silver badge to display on our web page and will be presented with a commemorative banner to hang at our local airport. The achievement badge is also displayed on EAA's Find a Chapter webpage.

Congrats to everyone!

Bob Goebel Jr. suggested that chapter 81 members should check out the tribute website <u>mustangace11.com</u>. You might enjoy some of the early photographs, memorabilia, and stories on the website.

In particular, take a look at the short story "Learning to Fly Fighters - and Other Lessons."

Bill Hempel has this update about the Benson Airport

I just wanted to share with you to see if you would want to pass some information on to our members about the Benson Airport. The Benson Airport (E95) just resurfaced their runway and now Roy of Southwestern Aviation is welcoming anyone wanting to fly out. He has now extended his **Can't Pass Gas Saturday** from his quarterly breakfast fly-in to <u>EVERY</u> Saturday. This Saturdays gas price will be \$4.10/gallon for 100LL.

Anyway, I have started a FB page to share all new information and also will post what every Saturdays discounted gas price will be.

A short primer on tool usage for those sheltering in place in their hangar or shop.

DRILL PRESS : A tall upright machine useful for suddenly snatching flat metal bar stock out of your hands so that it smacks you in the chest and flings your beer across the room, denting the freshly-painted project which you had carefully set in the corner where nothing could get to it.

WIRE WHEEL : Cleans paint off bolts and then throws them somewhere under the workbench with the speed of light. Also removes fingerprints and hardearned calluses from fingers in about the time it takes you to say, 'Oh sh*t'

DROP SAW : A portable cutting tool used to make stock too short.

PLIERS : Used to round off bolt heads. Sometimes used in the creation of blood-blisters.

BELT SANDER : An electric sanding tool commonly used to convert minor touch-up jobs into major refinishing jobs.

HACKSAW : One of a family of cutting tools built on the Ouija board principle... It transforms human energy into a crooked, unpredictable motion, and the more you attempt to influence its course, the more dismal your future becomes.

MOLE-GRIPS : Generally used after pliers to completely round off bolt heads. If nothing else is available, they can also be used to transfer intense welding heat to the palm of your hand.

OXYACETYLENE TORCH : Used almost entirely for lighting on fire various flammable objects in your shop. Also useful for burning holes into parts while joining them together.

TABLE SAW : A large stationary power tool commonly used to launch wood projectiles for testing wall integrity.

HYDRAULIC FLOOR JACK : Used for lowering an automobile to the ground after you have installed your new brake shoes, trapping the jack handle firmly under the bumper.

BAND SAW : A large stationary power saw primarily used by most shops to cut good aluminum sheet into smaller pieces that more easily fit into the trash can after you cut on the inside of the line instead of the outside edge.

TWO-TON ENGINE HOIST : A tool for testing the maximum tensile strength of everything you forgot to disconnect.

PHILLIPS SCREWDRIVER : Normally used to stab the vacuum seals under lids or for opening old-style paper-and-tin oil cans and splashing oil on your shirt; but can also be used, as the name implies, to strip out Phillips screw

STRAIGHT SCREWDRIVER : A tool for opening paint cans. Sometimes used to convert common slotted screws into non-removable screws and butchering your palms.

PRY BAR : A tool used to crumple the metal surrounding that clip or bracket you needed to remove in order to replace a 50 cent part.

HOSE CUTTER : A tool used to make hoses too short.

HAMMER : Originally employed as a weapon of war, the hammer nowadays is used as a kind of divining rod to locate the most expensive parts adjacent the object we are trying to hit.

UTILITY KNIFE : Used to open and slice through the contents of cardboard cartons delivered to your front door; works particularly well on contents such as seats, vinyl records, liquids in plastic bottles, collector magazines, refund checks, and rubber or plastic parts. Especially useful for slicing work clothes, but only while in use.

SON OF A B*TCH TOOL : Any handy tool that you grab and throw across the garage while yelling 'Son of a b*tch' at the top of your lungs. It is also, most often, the next tool that you will need.

Erik Fjerstad

I had previously presented to the chapter my "quest for more power" for my RV6A, with options of turbo charging, a bigger engine, constant speed prop, ignition system upgrade, etc. I selected a simple upgrade with a "Surefly" electronic mag to replace the left Slick mag on the O-320. While this helped with starting and improved operation at altitude with better climb and speed (a few percent), it didn't do much for overall climb rate (not expected to either). The option of a larger engine and constant speed prop was always a desirable one, but generally I considered it to be out of reach of my budget. The best deal for a new engine and prop is through VANS Aircraft where each serial number aircraft is eligible to get a deal on one prop and one engine, and if purchased together an additional discount essentially enables getting the governor for free. This would total almost \$40K including baffles, spinner, exhaust, etc. Mid-time used engines are available, some with risks involving a required propstrike inspection, etc., for between 8K and 15K. Used constant speed props for between 5K and 10K.

One interesting option was to purchase and salvage an aircraft for its engine and prop. A candidate for some time has been the 1977 Rallye 180GT parked at Ryan Airfield that hasn't been run since 1999,

with only 840 hours total time since new. It has been for sale several times, most recently for about \$19,600, with numerous individuals at Ryan and elsewhere attempting to buy it for much less. At one time, behind in parking fee payments, the aircraft was almost seized for auction. Quotes from 2010 to restore it to flying condition with an annual suggested that it would not be



1977 SOCATA Rallye 180GT

economic to consider every flying it again. This is really a shame, because from what I can determine, this model was a pretty decent 4-place aircraft, and if it had only been properly tied down, gust-locked, and canopy-covered, would be well worth restoring. But I digress.

I pulled the engine through a few cycles and I thought it felt pretty good. Checking the oil, it looked like very little operation since last run in 1999, I would mistake the oil for a recent fill. I decided to attempt to purchase, and over several months of persistence, managed to purchase it in March, to salvage the engine and prop and to dispose of the remains "economically" (i.e., not have to pay someone to haul the carcass away). With luck, I hoped the Arizona climate will have effectively preserved the engine and prop.



In the chapter hangar for extraction surgery

I rented the Chapter Hangar for a week for the exercise. First, I had to find usable tires and tubes to enable easily moving the aircraft from its parking spot to the hangar. The mains were typical 6.00x6.0 wheels and tires and worn-out but usable tires were readily available on the airfield. The nose-wheel tire was another matter, however. It is an odd size, 5.00x4, which is only used by this model aircraft and its close Socata cousins and the Mitsubishi MU-2. Going hangar to hangar at Ryan I found a pilot who for some reason had purchased some 4.00x4 tires and tubes but had never used them, and he gave me a set. While too small for operation, fine for my towing purpose.

Camshaft lobe Cyl #2 removed for cam inspection

First order of business was removing the cowling, the bottom spark plugs, and doing a borescope exam and compression test. I was pleased to find no anomalies with the bore-scope and the compression tested 80, 74, 70, 70 out of 80. Not too meaningful, but also not indicative directly of a valve or cylinder problem. Removing the prop, baffles, and exhaust system enabled pulling cylinder #2 for the cam inspection.



The cam lobes visible through cylinder #2 looked good to me, so back together with new



cylinder seals, proper torquing of the cylinder bolts, etc.. There is a lot of concern in the "industry" about cylinder removal in the field, but if the proper procedure is followed, the risk is low. The procedure is to avoid pulling cylinders on both sides (reduce risk of crank main bearing slippage), to thoroughly clean nut and bolt threads (new nuts are preferred), checking them for good free-running, lubricating thoroughly with a high-pressure moly lube, and then torquing in the proper sequence with the proper method

whereby the number of "strokes" to maximum is planned. If you creep up on the value (50 lb-ft for the large through-bolts) and have to stop at 45 due to wrench travel interference, you will probably see 50 on the next stroke without any actual nut turning.

Tucson, AZ

It is not OK to go beyond the spec torque just to get the nut turning. So you have to plan ahead to ensure you have stroke range available to reach the max on the final stroke. Removing all the baffles, including the inter-cylinder baffles, and a few of the cylinder oil drain tubes, was necessary for the required access. After all the nuts on this cylinder have been torqued, then all the nuts on all the cylinders must be checked for no movement when a needle torque wrench (not the click-type) is held at the rated torque for 20 or 30 seconds. I found the opposite end of one of the through-bolts to be quite loose, which would not have been good to miss. Time will tell whether I did this correctly!



Engine extracted !

Engine near its new home



The engine is now in my hangar with my RV6A and I am planning the upcoming tasks to be completed by the time of my next condition inspection in August or September.

- Carburetor, fuel pump, prop, and prop governor: overhaul parts are original from 1977, and no notations of service (except for prop) in the logbooks and no operation (flight or engine start) since 1999.
- Magnetos make a decision on whether to use them as is, or with a Surefly in place of the left one, or to go "all-electronic".
- Engine the AD addressing the oil pump gears is applicable and does not appear to be dealt with, so the accessory case will have to come off for the pump inspection and gear replacement.
- Baffles, spinner, and airbox the best solution available are standard VANS kits, to be purchased and assembled.
- Exhaust System Vetterman will modify my existing O-320 exhaust system to fit the O-360, thankfully avoiding purchase of a new system.
- Installation Fitting the engine with its accessories to the RV6A, hopefully without having to make too many changes to the cowling, sensor wiring, fuel and oil plumbing.

The last step of the salvage operation was to dispose of the carcass – the aircraft less engine and prop. Studying the FAA registry, there were only about 90 closely related aircraft imported, and this includes a mix of light-weight (150hp versions), heavyweight (180 or higher). The engines included O-320, O-360, O-540, and Franklin engine versions, with limited commonality between them. As the population is small, the demand for parts would likely be limited to this existing small group. I extracted the list of 90 owners of (current and deregistered) related model aircraft and sent them all a letter. Within 5 days I had 6 inquiries for parts and one caller who wanted the nose gear and would take "all" to get it. He paid immediately and plans to be here with a truck on Tuesday to strip what he wants and arrange for a scrap yard to chop up and remove the rest.

So far so good! I don't have to pay anyone to remove the carcass, the engine is probably very good, and hopefully the prop checks out as usable. This Hartzell prop is subject to a recurring eddy current inspection but there is an "alternate means of compliance" where some machining is done to install some additional oil seals to fill the hub with red oil to facilitate crack detection through observance of the leak.. The overhaul and oil-fill mod is over \$4K.

My estimate for all the credits and debits, including acquiring the Rallye 180GT, selling the carcass, overhauling the bits, buying the kit parts for installation, etc., and disposing of my existing O-320 with prop and spinner, is about \$5K. If successful, that's a bargain for a mid-low time O-360 with CS prop. Time will tell! I will keep you posted.

Erik

EAA webinars are free to all aviation enthusiasts. Pre-registration is recommended since space is limited to the first 1,000 registrants. Upcoming webinars include the following topics and presenters:

> 4/14/20 7 p.m. CDT <u>Flying Start - New Online Registration</u> Serena Kamps and Don White

Join EAA Chapters' staff as we discuss EAA's brand new online registration tool for Flying Start events. 4/15/20

7 p.m. CDT <u>Healthy Pilot Technology</u> **Qualifies for FAA WINGS credit.** Phil Lightstone

Pilot demographics sees too many aging pilots, with the impact to our bodies that time takes. Pilots learned in flight school the impact that flight has to our health and how our health can impact flight. Few pilots have experienced the impacts of hypoxia, with the inevitable negative out come. There are many medical grade devices which can be used at home and in the air to help with recognizing the impacts to our bodies. Learn about a variety of affordable technologies that could one day help save your life. You'll hear from aviation journalist Phil Lightstone, who will provide the facts about the technologies, cutting through the jargon and three letter acronyms to help you make an informed decision.

4/16/20 7 p.m. CDT Choosing Wheels & Brakes Qualifies for FAA WINGS and AMT credit. George Happ

In this webinar George Happ from MATCO mfg. will guide you through proper selection of your wheels and brakes for your experimental aircraft. In addition, there will be discussion of maintenance and inspection procedures for Matco wheel and brake systems.

4/21/20 7 p.m. CDT <u>Coaches and Camps for Aerobatic Competition</u> **Qualifies for FAA WINGS credit.** Johnny Ostmeyer

IAC member Johnny Ostmeyer discusses how aerobatic coaches and camps can help your contest flying. He will share tips about how to find aerobatic coaches and camps, and also what to expect from them.

4/22/20 12 p.m. CDT <u>Flying Clubs - Growing Participation in Aviation</u> David Leiting, Chapter Field Representative II

EAA's initiative to support the formation of flying clubs by the members of EAA's chapter network continues to grow, and David Leiting from the EAA chapter office will help you learn the ins and outs of forming a separate nonprofit flying club at your local airport!

4/22/20 7 p.m. CDT Five Weather Planning Tips to Get Ready for Summertime Flying Qualifies for FAA WINGS credit. Scott Dennstaedt

As airframe icing advisories morph into advisories for thunderstorms, it's time to brush off the wintertime rust and focus on the threat of deep, moist convection. In this webinar, you will learn five tips on how to better prepare yourself when convection threatens your proposed route of flight. We'll cover long, and short-range flight planning for convection as well as tips on how to minimize your exposure to dangerous convective turbulence.

4/23/20 7 p.m. CDT Choosing and Using Tools for Your RV Build Qualifies for FAA WINGS and AMT credit. Greg Hughes and Mike Lauritsen

Planning your workshop and understanding the new tools you're going to need and use can be a daunting subject. Greg Hughes from Van's Aircraft and Mike Lauritsen from Cleaveland Aircraft Tools will help you better understand the options and prepare you for the choices. Additionally, they will review the use of some special tools. 4/29/20 7 p.m. CDT Float Flying: Freedom to Explore Qualifies for FAA WINGS credit. Amy Gesch

Amy Gesch from Wipaire, Inc. will present on what it takes to get a seaplane rating, how it can benefit you, and what you can do with it. Learn about different types of seaplanes and seaplane flying, plus tips on what to look for in buying your first seaplane. Come on in; the water's fine!

4/30/20 7 p.m. CDT What's Involved in Kit Building Qualifies for FAA WINGS credit. Charlie Becker

The goal of the What's Involved in Kit Building webinar is to take you through the entire building process. Charlie Becker from the EAA will discuss the relevant FAA rules and regulations, and dispel some of the common misconceptions involved in building your own aircraft. This seminar is invaluable for anyone desiring to build an airplane.

5/5/20 7 p.m. CDT Flight Testing 101 Qualifies for FAA WINGS credit. Paul Dye

Paul Dye presents a look at the things a builder/pilot should consider in planning, training for, and executing a flight test program on their new homebuilt aircraft. This presentation looks at the goals and methods of flight testing, and how to manage potential risks to both pilots and the aircraft so that Phase 1 flight testing goes smoothly and productively.

Location of the EAA Chap 81 hanger

Drive down South Aviator Lane to the end. Park just south of AirWest. There is a walk in gate just south of the auto gate. It is not locked. Walk through the gate, and turn left. Walk past the first hanger on your right. The EAA hanger is on the Northwest corner of the second hanger, E-7 Chairs are available or Bring your own chair

See the two images below!





Classifieds

Remember that you can place an add in the newsletter (it will appear on the Chapter 81 web site also) to sell those items in your hangar. Then, you can buy more shiny stuff to put in your h a n g a r ! S e n d e m a i I t o <u>newsletter81@eaa81.org</u> with a pic, description and contact information.

011 Zenith Zodiac 601XL w/B modifications. EXTREMELY nice looking plane. 158 hrs, Jabiru 3300, MGL Glass panel plus a mounted tablet, autopilot, plus all the other stuff. \$44,500

If interested, contact Jimmy 860-946-7194 jimmyg2000@att.net



Important updated information!



Lyndell Taylor Itaylor017@yahoo.com

Desert Sport Flyers suffered a setback in March when during the annual inspection a crack was discovered in the top cap of the center section main spar of the club's aircraft. The manager elected to disband the club at that time. However, some of the club members felt that the club should be continued with new organization documents and new management. Since that time, the new organization has been formed and will operate under the same name (Desert Sport Flyers). There are some options available for obtaining an aircraft and the club will soon make its decision as to what aircraft it will choose. The new managers are: Jessica Cox, President; Mark Gregory, Secretary; Steve Hulland, Treasurer; Jerry Witt, Maintenance Officer; And Bob Rill, Director at Large. If anyone is interested in membership in the new club, please contact one of the new officers.

Lyndell D Taylor

Stephen Zigelstein

Stephen has been building these aircraft for some time. Perfect for anyone that has small children or grandchildren. Easy build! Some parts are available prefabricated from Harbor Freight Aircraft Supply! To save on engine cost, the prop is hand cranked. From the photo it seems that the prop could use a little more pitch, and elevator and rudder authority is limited! Larger size Chap81 pilots may substitute a bigger barrel for some cheap stick time.

Stephen has some complimentary simple plans and instructions available if you are interested.

stephen_zigelstein@msn.com 308-383-9786



April 2020

Ben Wilson



Looking for Wittman Tailwind W-10 stuff:

- 1. W-10 Plans (24' span triangle tips)
- 2. Builders Manual by Jim Stanton
- 3. Callbie Metal Wing Plans
- 4. Clement Mods Drawing Package with Tri-gear.
- 5. Dimensions of Brian Alley Carbon Fiber Cowling.
- 6. Info on Vetterman Exhaust with muffs for carb/cabin heat.
- 7. Any "trail of breadcrumbs" to find a 0-320
- 8. Ideas on 3-blade prop.

If you're moving on to something faster, sleeker and fancier – this would be a good way to retrieve some value from Tailwind stuff In your garage.

Ben Wilson EAA 42794 <u>4benwilson@comcast.net</u>

EAA BIPLANE FOR SALE \$19,500





125 hp Lycoming 0-290-G, New brakes & tires 417 252-0332 OR 417 252-1750 WILLOW SPRINGS, MISSOURI More photos available on request 2007 Johnston Tiger Cub, Single Seat LSA, Rotax 503 DCDI, TT ACFT/ENG 70hrs, Basic VFR instruments, Custom 9 gal aluminum tank, Cleveland Brakes, Custom cargo storage compartment behind seat, Folding wings, Can be flown with Doors open or Off, Stall 27 -Cruise 75 MPH

Asking \$9K Stephen Zigelstein.

Best way to contact me is Cell Phone <u>308-383-9786</u>



Best Prices on Dynon for EAA Members

Marc Edmonds, the owner of Light Sport USA in Sisters Oregon and a premier Dynon independent dealer, is offering to all EAA chapter members what he believes to be the lowest pricing in the USA on new Dynon avionics available on Dynon's website, (<u>www.dynonstore.com</u>), shipped directly from Dynon in Woodinville, WA. to the purchaser with full warranty.

For a firm quote contact Marc Edmonds at Light Sport USA, <u>www.lightsportusa.com</u> 541-719-1245 <u>vtails@yahoo.com</u>

Due to circumstances I am forced to sell my Rv9a sliding canopy kit. Chapter 81 has viewed my project twice, Craftsmanship is excellent. Tail, wing, and fuselage are complete. Electric elevator, electric aileron, electric flaps. Ray Allen stick grips, Dual brakes. landing lights kit, Position light kit, Whelen strobe kit. Finish kit is included. Plane is on gear temporarily. Air plane has had wings installed and tail and wings measured and drilled for correct angles. Stewart system primer. Lift reserve indicator. Tanks sealed. External steps. Gray and blue leather seating. No engine or prop, It has the fuel injection cowl so a 360 will also fit, besides 320.

Neil Cubbon 520 373 3909 <u>Neilc@icloud.com</u> "After 2 years of health problems, I am back at work on my two projects, however, I can use some help. Both are shown in the attached photo.

The yellow one is a 3/4 scale Navy version of a Stearman WW2 trainer in wood construction and almost finished. Remaining work is activating the Rotec radial engine, brakes and instruments.

The other is a full-size version of a Fokker DR1, metal framed WW1 fighter with a lot of work remaining.

If you think that you, or someone you know, might be interested in gaining some hands-on construction experience, please give me a call or text me at 520.282.1523, or email me at <u>rolden1@gmail.com</u>.



1948 Swift airframe TT 2250 hours, engine 345 SMOH, New prop. many approved mods including 210HP continental IO-360 engine, stick flight controls, 50 gallon fuel upgrade, sliding canopy and more. \$60,000.00. based at Ryan Field. contact George Snyder <u>520-661-2127</u> for more info.



Long Ez Project for sale

I will no longer be able to get my pilot's license due to medical issues. The URL below will take you to my website that shows most of the components included in the sale. The price is \$2500, but I am open to partial or complete trades(looking for enclosed trailer or SCCA project car), open to all offers, the worst I can do is say no. I can store this project until spring if needed. Please email with any questions, or use the reply box on the website.

https://longezforsale.godaddysites.com/

Thank You, Allen (aabebay@evertek.net) In July 2018, I purchased the Empennage/ Tailcone and Wing Kits from Van's Aircraft for a RV12iS (see attached). In October 2018, under the supervision of Synergy Air (Eugene, Oregon), I completed the Empennage. I have now completed the Tailcone, but have not done anything on the Wing Kit, except sorting and labeling all the parts and fittings. The cost of all the items that I have purchased from Van's Aircraft amounts to \$11,400. The cost today from Van's for these same parts would be about \$12,000. I also have the complete tool kit for the RV-12iS which I purchased from Aircraft Tool Supply at a cost of about \$1,600 plus a pneumatic squeezer (3" yoke) costing \$500.00. I have attached a few pictures of the Empennage and Tailcone.

The Empannage, Tailcone, and Wing Kit are available for the price that I paid for them, namely \$11,400 or best offer. The RV12iS Tool Kit is available at no extra cost and there is no tax applicable.





Tel: 520.207.5002 (voice only) or



Check out our Chapter Facebook Page! <u>https://www.facebook.com/eaa81.org</u>

Please send items of interest, classifieds, etc to

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