June 2020

EAA Chapter 81

Tucson, AZ





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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 June 20, 2020 10:00

Ryan Airfield Administration building (Just East of Richie's Cafe)

Bob Miller will provide a presentation about AN aircraft hardware, why we should use it (even on experimentals, where it is not required), and how to understand its nomenclature (the letters and numbers that identify it).

We will attempt to practice appropriate physical distancing, and members are asked to bring and wear appropriate facial masks.

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

Arizona Aviation Events

Dave Jaksha

Ok, everyone. Its that time of year for your newsletter editor to do a little whining. I think it is important for all of the members of Chapter 81 to participate actively in the chapter. I am constantly looking for content for our monthly newsletter. With so many of us stuck in our bunkers waiting out the Corona Virus, it seems we have time to write some text. We have a great bunch of members with much to share with everyone. 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 that we are blessed with exceptional aviation talent and all of us can learn from and pickup something new this year.

So please consider contributing some sort of content for the newsletter. It doesn't have to be a technical article, although I am sure everyone enjoys reading about building, fixing, modifying and trouble shooting problems. How about a trip you took recently, a fly-in breakfast, a great deal on AV fuel or a pump for auto-gas. Photos are always a plus. Almost everyone carries a phone, so take some pics of what you are doing. How about some problem you are having? Give us a description of the problem with some pics and see how many solutions the members come up with. If you spend time watching



YouTube, send along an interesting aviation link we can all enjoy.

We are fortunate to have exceptional aviation talent and with additional training opportunities available from the EAA Webinars (I put each months link in the newsletter) and the FAASTeam, everyone has the ability to learn and pickup something new every month.

In summary, please don't concern yourself if your writing abilities. Not everyone can write at the level of a littérateur like Bob Miller! Send me some text and I will cobble together something in the tradition of a Grub Street writer (fancy way of saying hack!). Common help a fella out!

Cheers,

Dave



Food in the Chapter 81 hangar

Hi, everyone. I just have a reminder for everyone. When we use the Chapter 81 hangar, it is important to remove any food that you bring in either when you are working on a project or enjoying a chapter meeting. Our voracious Arizona ants quickly find the food and take over the space. They are a real pain to get rid of once they invade.

This past meeting they found some sugar packets and really enjoyed the mother load of carbohydrates!

Your hangar manager doesn't mind removing the snakes, but she hates getting bitten by ants when she's cleaning up someone else's food!

Thanks,

Angel

Bob Miller

EAA Chapter 81 Project Meeting Minutes May 16, 2020

Meeting was called to order at 1000 by President Erik Fjerstad at the Ryan Field hangar of the late Bob Olden. His step-son Josh was present and wanted to offer Bob's scaled-down Stearman PT-17 project to our chapter for possible completion. Chairs were widely spaced, and many wore face masks.

Secretary's Report: The Minutes of the January 18th Meeting, the last one held before we stopped meeting due to the coronavirus pandemic, were approved without being read. Disappointment was plainly seen on the faces of those present at this lost opportunity to experience a genuine literary treasure. And, if you believe that one...

Treasurer's Report: Eric Nelson was unable to attend the meeting, but provided a sheet stating that we have \$740 from dues since the last meeting, plus another \$240 in donations. The current balance in our account is \$4,461. We were reminded that the Chapter Hangar can be rented for \$10 per day or \$300 per month for final assembly, etc.

Visitors: Robert Lyman and Rachael are not pilots, but are interested in building.

Gary Echebrecht is a pilot, previous aircraft owner, and has a strong interest in Young Eagles flights. Kevin Hamler has a Corbin Baby Ace in pieces and is looking for building support. As Chapter 81 Member Emeritus Dennis Hall has built a Baby Ace, we will try to put Kevin in touch with him. Old Business: The D-GULL prototype that was donated to Chapter 81 by Mauro Cornejo (that's C-o-r-n-e-j-o, not C-o-m-e-j-o) was to be the subject of a project meeting before our schedule was disrupted by the coronavirus. It was clear that the chapter was not interested in completing the project, but it could be used to demonstrate riveting techniques. From the beginning, George Snyder offered to complete the project if Chapter 81 did not want to do so. Today, we voted to donate it to George, but store it for now in the Chapter Hangar. We still may use if for demonstration, with George's permission, until he is ready to move it to his hangar.

New Business. George Snyder also has a recent Mooney wreck, offered at a price of "cheap". Jerry Miel invites all to come see his Thorpe T-18 project, and has another for sale. For those not familiar, John Thorpe was an aeronautical engineer who designed, in collaboration with Fred Weick of Ercoupe fame, the Piper Cherokee. The T-18 was a plans-built aluminum side-by-side 2-seater with gull wings and a tail wheel. The plans were made available in 1963, and, in 1976, the T-18 was the first home-built airplane to circumnavigate the world. Van's Aircraft's later RV-6 resembled the T-18, but with a straight wing, and similar performance (top speed 200 MPH, cruise 180 MPH).

Ken Balinger is ready to rig the wings of his Kolb Firefly project and wishes to talk to our Tech Counsellors about this procedure.

Next was the discussion about the Stearman PT-17 (Model 75) Kaydet replica project. Before the meeting started, many had the opportunity to examine Bob Olden's project. It is beautiful, and painted in Navy Primary Trainer colors. Although visually a 2-seater, it is set up to be a single-seater, flown from the rear hole. However, some building shortcuts and questionable practices were spotted by several members, some of whom are A&P mechanics. After some discussion, it was decided that Chapter 81 did not want to take on the project of completing the replica. Mobile Aire manager Bill McLearran purchased the gorgeous Rotec R2800 radial engine and Culver wooden prop; the fate of the rest of the replica is undetermined. For those unacquainted with the Rotec engines, they are made in Australia and come in two flavors: the R2800 7-cylinder (not to be confused with the Pratt & Whitney R-2800 of WW II fighter fame) and the R3600 9-cylinder. However, in the original, the 2800 refers to the engine's displacement in cubic inches, and in the Rotec, it refers to cubic centimeters. 2800cc comes to 171.8 cubic inches, a wee bit smaller than the 18-cylinder, double-row P&W radial.

The power is a bit less too: 110 HP at 3600 (geared) RPM, vs up to 2100 HP of the P&W Double Wasp, as found in the Chance Vought F4-U Corsair and the Republic P-47 Thunderbolt, among many, many others. Aside from its enormous displacement advantage, the P&W R-2800 is also supercharged; the Rotec radials are not. The Rotec R3600 (220 cubic inches) is rated at 150 HP.

The meeting was adjourned at 1020, but that's when the real action began. Josh held a hangar sale of many aircraft parts and tools, as well as the miscellanea that accumulate in a working hangar. Basically, Josh said, "bring the parts/tools/whatever to me and make an offer". It was speculated that Horrible Freight might go out of business without Bob's multitudinous purchases. Many happy airport people helped clean out his hangar, wallets somewhat lightened (Josh was quite reasonable in his pricing) and arms and carts filled with their treasures.

We will truly miss Bob Olden, who epitomized the spirit of Experimental Aviation. He lived and breathed flying and building airplanes, loved woodworking, and loved Chapter 81. Despite advanced age and severe health issues, he attended meetings as he could and continued to build as long as he could. May we all aspire to his example.

The next meeting will be held at the Ryan Field meeting room <u>on Saturday</u>, <u>June 20 at 10 AM</u>. Bob Miller will provide a presentation about AN aircraft hardware, why we should use it (even on experimentals, where it is not required), and how to understand its nomenclature (the letters and numbers that identify it).

Respectfully Submitted by Secretary Bob Miller

Whadaya Mean It Stalled?

Stalling is no big deal in an airplane, done correctly. Why, we stall it every time we land, unless you like to fly it onto the ground. Nothing wrong with that, as long as you are willing and able to hold it down until it stops flying, but generally, it's a good idea to do near-stall landings unless your airplane is equipped with spoilers to dump the lift after touchdown. An exception would be a wheel landing in a tail-dragger. This means landing on the mains, not on all three. Why a wheel landing? Well, it provides better visibility over the nose because there is less flare, and it arguably provides better crosswind control because there is more wind blowing over the rudder (because you are moving a bit faster). Properly done, a wheel landing has you touch down on the mains, immediately giving a bit of forward stick to "stick" the landing. This reduces the angle of attack of the wing, so that it is not inclined to lift off again. Do NOT push the tailwheel down, but let it settle, and, the moment it touches, bring back the stick to keep it planted for steering control. Sounds easy? It is, in some planes, after lots of practice. Some airplanes prefer wheel landings, others 3-pointers, and some are fine with either. A proficient tailwheel pilot practices both 3point near-stall landings and (2) wheel landings (airplane permitting), because either might be the best option, depending upon the aircraft and conditions.

But, I digress. The stall to which I referred in the title was not an aerodynamic stall, but an engine stall, as in, it just quit. This can be rather anxiety-producing in the air, especially during the climb out just after takeoff and, thank goodness, I have never experienced this. No, this time the engine stalled after I had landed, pulled off the runway, and stopped on the taxiway. It came as quite a startle, as no airplane that I have piloted has ever had the engine just quit (except once when I had inadvertently kicked off the fuel valve - oops!).

So, the first thing I did after the engine stopped was to peek at the fuel valve. My size 11 EE brogans are not designed for delicate rudder work, but I make them function, most of the time. The Sisler Cygnet that I fly with its owner, Rick Brown, has the fuel valve right next to the right rudder pedal of the left-side pilot. Sure enough, it was not pointed straight back as it should, but it wasn't all the way off, either. Even a trickle of gas should let the engine idle. After aiming the fuel valve correctly, I found that the engine would not restart. A primer-full of gas let it sputter a bit, but no start. A repeat of this maneuver caused another sputter and no start. A peek at the fuel gauge showed 6 gallons remaining, and, yes, the fuel pump was on. What gives?

We had already been switched from tower to ground, so we called and reported our situation. We were clear of the runway, but stopped on the taxiway and unable to restart. The helpful airport service truck arrived quite quickly, welcome as this was to be a 108-degree day and it was already getting uncomfortable in the cockpit <u>at 9:30 AM</u> without that big fan to cool us down.

Here is a big advantage to a small tail-dragger: if you have to tow it, any pickup truck can do just fine. We were given a ride back to Rick's hangar to pick up a chain and borrow some tie-downs from a neighbor. Then back to the airplane and back up Rick's little Toyota pickup with the tailgate down. Spin the Cygnet around, pivoting on one tire after breaking loose the tailwheel. Rick and I easily lifted up the empennage, using conveniently placed handles just forward of the horizontal stabilizer, and I twisted the tailwheel to 90 degrees from axial. We gently placed the wheel into the groove between the bed and the tailgate, then chained it to the tie-downs. I sat in the bed to make sure that nothing untoward occurred and Rick gently towed us to his hangar. Untying it and lifting it down was even easier than up, and I returned the borrowed tie-downs. We pushed the Cygnet into the hangar and called it a day. After cooling down, it was time to think: what had happened? We had been doing touch-and-goes, or, as the English like to say, bumps and circuits. Hot morning, lots of full-throttle climb-outs, but the engine gauges showed no overheating. It flew perfectly with no engine problems nor loss of power. Only after we stopped and spoke to the tower after some prolonged idling (due to lots of radio chatter) did the engine quit. The fact that the primer made the engine cough tells us that the problem was with fuel feed, not with spark, and, besides, the magneto was recently rebuilt and has functioned perfectly for several flights. An ignition problem would likely have shown up during the flights, as well.

Finally, the light bulb lit up over my head. Prolonged idling on a very hot morning, combined with a partially cut off fuel flow, allows the fuel line to heat up and boil the fuel. The Ellison throttle body does not like to meter gasoline vapor.

The next morning, we pushed out the Cygnet and tried to start it. It fired nearly instantly and idled perfectly. Rick had me in the left seat and stood outside so he could listen to the engine. He then had me taxi to a pad for several full-power run-ups. The engine responded normally and I had to stand on the brakes to keep from being pulled forward. After each full-power run of about a minute, I pulled it back to idle and it sat there and purred. I taxied it back for further instructions. Normally after any mechanical work or problem, Rick would take the Cygnet up for an FCF (Functional Check Flight). This time, he suggested that I do it. As it never had given us any problem at full throttle. I took a big gulp and contacted ground for taxi. The run-up was completely normal, so I called tower to ask for one circuit and landing for an FCF, and was given the runway. Takeoff was completely normal, except that acceleration and climb were more rapid than I had ever experienced in this airplane. Did I mention that I had never soloed the Cygnet before? Today, there was no wind, and the airplane was functioning perfectly.

I climbed to 400 feet AGL instead of my usual 300 before turning crosswind, because I was still over the runway and wanted more altitude in case I had to make the impossible turn back. Rick and I had practiced this at altitude and we know for a fact that the Cygnet can turn back to over the runway in less than 300 feet of altitude loss; don't try this in your 182! I turned crosswind and flew a tight pattern at normal altitude, always keeping that runway within gliding distance. I turned base early, because I wanted to have plenty of altitude below me on approach, as altitude above me is of very little use. There is plenty of runway at Ryan and I did not need to land on the numbers, so coming in a bit high gave me a security blanket. I could always slip to lose altitude if needed. I made one of the best wheel landings I have ever done, pulled off the runway, and let it idle while calling tower and then ground. No problems whatsoever. Now, normally, I don't trust mechanical problems that solve themselves, but this one was becoming obvious: Lots of heat under the cowl plus prolonged idle on a record-tying hot summer day = vapor lock. It would not have happened with the throttle open and presented no danger, other than of possible heat exhaustion of the pilots.

And, hey, I cheated death yet again and soloed the Cygnet! Life is good!

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:

6/16/20 7 p.m. CDT <u>Two Guys, One Airplane, and the 2018 World Advanced</u> <u>Aerobatic Championship</u> Mike Lents and Aaron McCartan

Mike Lents and Aaron McCartan from the 2018 U.S. Advanced Aerobatic Team will talk about their adventures and teamwork while representing the United States in Ploiești, Romania. Learn what it takes to have an aircraft shipped across the ocean, put back together using the metric system, and flying across eastern Europe under really different rules you just would not believe.

6/17/20 7 p.m. CDT The Doolittle Raid Story Chris Henry

Join Chris Henry from the EAA staff as he discusses the story of heroism and inspiration of the men behind the B-25s launched from an aircraft carrier. Chris will share fascinating details of America's first daring strike back at the homeland of Japan during World War II. Tune in for detailed discussion of the 1942 raid as well as other fascinating events which has honored those involved.

6/24/20 7 p.m. CDT Your Airworthiness Inspection — Be Ready Qualifies for FAA WINGS and AMT credit. Joe Norris

The final step in building your amateur-built aircraft is the FAA inspection. In this presentation, EAA staff member and designated airworthiness representative Joe Norris will discuss how to prepare for the inspection and how to avoid the most common mistakes.

7/1/20 7 p.m. CDT <u>Was Justice Served?</u> Qualifies for FAA WINGS and AMT credit. Mike Busch

After a fatal air crash, the NTSB investigates and eventually publishes a probable cause. Civil litigation often ensues, usually brought by the family of the decedents. These lawsuits often result in a settlement, but sometimes they go all the way to trial. NTSB findings are inadmissible at trial, so the jury has to make its own determination of who was at fault. In this webinar, Mike Busch takes you through the details of a fatal accident involving a Cessna 421 that crashed shortly after coming out of an annual inspection. You'll learn what the NTSB determined, what the jury decided, and what really happened.

7/8/20 7 p.m. CDT Fast Track to Experimental Qualifies for FAA WINGS and AMT credit. Prof. H. Paul Shuch

Learn the differences between an ultralight, an E-LSA, an S-LSA, and an E-AB, and what can and can't be done with each type. Can you convert one to the other?

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



Tucson, AZ

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



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>

Tucson, AZ

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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