

EAA Chapter 81 Meeting Minutes
October 17, 2020

Meeting was called to order at 1000 at the Ryan Field meeting room by President Erik Fjerstad.

Treasure's Report: Erik Nelson provided us with a fairly detailed report about income and expenses through September, 2020. The former included dues of \$1,040.00, hangar use fee received: \$950, donations of \$1,371.60, including coffee donations: \$118.60, and sale of donated stuff: \$213.00. Total income was \$2,123.60. The biggest expense was hangar rental, at \$3,300.00, paid up through December, 2020. This brought our bank account down to \$3,703.34. A full accounting can be viewed on the website. President Fjerstad strongly discourages cash payment of dues, recommending instead the use of Zelle, Venmo, Paypal, or, that retro favorite, a check.

Secretary's Report: Once again, Bob Miller brandished a copy of the (this time September 19) Meeting Minutes, and once again, a motion was made to approve the Minutes as published in Sky Writer and on the website. Today's crowd was on its toes, as the motion was made within one second of Bob's opening his mouth, and approved and passed within another few seconds. The Minutes were not read. Again.

New Visitors: Bart Prieve hangars at Flying Diamond residential air park, and flies a Grumman American AA-5B Tiger (the 180 HP version of the lower-powered AA-5A Cheetah).

Wolfgang Sholz is a retired engineer from Germany, who embraces his new country (he was actually wearing a cowboy hat) and started, but did not finish Sport Pilot training. He is here to learn.

Jim Currie is from a small family manufacturing background and has been retired for 10 years. He has been flying for 2 years.

Tim Fisher is a friend of Don Berlin and, like Don, has a Long EZ. Unlike Don's, Tim's has been on fire, had a recent brake failure and off-runway excursion, and, most recently, blew a hole in its engine cowling. So far, a satellite has not fallen on Tim nor his EZ, but nobody wants to stand too close to him.

Old Business: Erik Fjerstad's RV-6A received an engine transplant, a used Lycoming O-360 replacing his also-used O-320. Along with another 30 HP, he also upgraded from a wooden Performance Propellers fixed-pitch to a brand-new Hartzell constant speed aluminum prop and, with 40% more effective power at reduced speeds, has experienced significant improvements in both takeoff and climb as was hoped for. At 8,000 feet (65% power), he burns 8 GPH at 170 knots (196.33 MPH) true. Now, climb angle is limited by engine temps, not power. This is not just the usual pilot-generated hyperbole (look it up, you low-life); he showed us a printout from his EFIS (Electronic Flight Instrument System) documenting speeds and engine data. The combination of a

slightly heavier engine and a significantly heavier prop makes the aircraft much more nose-heavy; landing now requires full nose-up trim and a pull on the stick. Climb requires the opposite. He installed a 2-channel electronic ignition system with backup battery and needed a new air-cleaner box, cooling baffles, spinner, and exhaust system. Had he used all-new components, the modifications would have cost \$40K, but, thanks to Erik's magnificent scrounging, expenses were kept down to about \$15K! I'm not saying that Erik is cheap, but it's rumored that he shares shoes with a fellow who works nights.

Larry Wilson has flown 7 hours so far in Phase I testing of his newly-completed Zenith STOL (Short Take Off and Landing) CH 701. He says that he is still getting used to landing; as a low-mass, high drag STOL, the Zenith loses energy quickly in the flare, requiring different technique from many general aviation aircraft. The original radiator mounts broke (the CH 701 uses the water-cooled Rotax 912 ULS engine) and even with the new ones and slightly different mounting location, CHTs still were in the 260-270° range. Adding some weather-stripping to redirect airflow did the trick, bringing CHTs down dramatically. According to Larry, it now "just needs a better pilot". Don't give up, Larry; it's just a matter of learning the airplane. Land with a little power on and a constant perceived rate-of-descent and you'll be dazzling the rest of us with your under 300-foot landings!

Jason McCoy has acquired an Avid Flier which came with a Subaru EA81 water-cooled 4-cylinder four-stroke engine. He has replaced this with a much-lighter HKS 700E, a 60 HP air-cooled opposed 2-cylinder engine. He is also updating his panel from steam to glass. The Avid is rated for +6 and -3 G's, in case he is tempted to turn the world upside-down.

Glen Allison, after not flying for 28 years, has a Sonex which should be flying in 3-4 weeks. The leaky fuel tank will be replaced with a new one next week. Flying behind a Version-2 Jabiru 3300 6-cylinder air-cooled engine off H. L. Cooper's ultralight strip, he will need to have 15 hours of dual and 10 hours solo to satisfy the requirements for insurance. Hull insurance would have cost half the price of the airframe, and liability insurance alone will cost \$1,800 per year for this 86 year-old pilot. You've got to love those insurance companies! George Snyder told us of an 80,000 hour pilot who was denied insurance on his Swift because he was 82 years old. Hull insurance is particularly hard-to-get. He recommends never to let your liability insurance lapse. Although the state of Arizona does not require pilots to have liability insurance, many businesses and localities, such as Mobile Aire Hangars and La Cholla Airpark, have their own requirements.

Bob Miller refers to his Kitfox Series V Vixen as the Never-Ending-Project. At this point, he is running out of things that he can do within his undersized 2-car garage/workshop due to space limitations. For example, he has completed the elevator and rudder, but cannot mount them nor the engine. He still can install the trim switch and console, the door framing and weather-stripping, and some other small odds and ends, but he is becoming very frustrated by the delays in emptying the hangar that he was promised.

The previous tenant's airplane has already been flown to its new home, but the remaining contents of the hangar are yet to be removed.

Jason McCoy inquired about the Young Eagles program; it is on hold due to the COVID-19 situation.

Jim and Dan Keown are ramrodding the possible Chapter Project: the 1946 Cessna 140 that was donated to Chapter 81. Vice President Steve Horton has had a chance to review the log books and describes them as "creative literature". The engine was overhauled in 2004 and has had little time since then. This should, in itself, not be a cause for concern, as President Fjerstad pointed out: idle engines in Southern Arizona tend not to have the corrosion issues common to wetter climates. However, he cautions, old rubber parts should be suspect. He has personal experience with two older aviation engines to back his opinion. However, he also uses CamGuard, just in case. The Keown brothers estimate a cost of \$12-14K, some of it in pretty big chunks, to finish the project with new parts (Erik thinks that this estimate is inflated). An initial inspection showed that it will require tires, tubes, wheel bearing seals, a new propeller (the provided one is not serviceable), and there is some corrosion in the control cables. Ancient radios and instruments may require replacement as well. We also might want to re-cover the wings; the Poly Fiber website suggests a cost of \$2,700 just for fabric, \$7,800 for all materials. The restored aircraft could sell in the \$20-25K range. President Fjerstad suggests that an informal annual inspection by an A&P mechanic be conducted (it does not need to be signed off) just to help estimate costs. He considers the cost of the inspection to be a worthwhile investment. Then bring all this information to the next Chapter Meeting for review by the members for us to decide what we want to do. He also suggests that recovering the wings could be an educational Chapter 81 Project in itself. He asked the chapter to authorize up to \$500 for the inspection and this was approved. An appeal was made to the present members to make a trip to the Chapter Hangar to move the wings onto our wing racks.

New Business: Mobile Aire Hangars will be sponsoring a Fly-Market on October 31 starting at 10 AM. Bring your no-longer-needed aviation stuff and hopefully find a new home for it (plus come home with a few new/old treasures)! Wearing of masks will be required. Contact John Barrowman, Hangar Manager, for details.

Angel and Greg Duncan are seeking successors as Hangar Managers. They state that "all the hard work is done", and they would still be on-call to help out, as would Erik. Responsibilities include keeping the floor swept, the spider population down, and keeping track of tool and hangar use.

Treasurer Eric Nelson is requesting replacement as well, after 4 years of valued service. Kevin Byers has thrown his hat into the ring. Traditionally, elections for officers are held in November with duties beginning in January. President Fjerstad is willing to continue, but is not opposed to being replaced if that is the will of the chapter. Vice President Steve Horton is also willing to continue, although Jason McCoy expressed willingness to assume that office. Treasurer Bob Miller joked, "If nominated, I will not

run, and if elected, I will not serve”, which garnered a laugh, as he has been Secretary almost as long as Mitch McConnell has been a Republican, and no replacement for Bob has been suggested as of this time.

All of the above did not necessarily happen in the order in which it was presented, as we did not want to keep our Featured Speaker waiting; rather bits and pieces were pasted together in an attempt to make some order out of the chaos that is a Chapter 81 meeting. Now to the Main Event: Mark Meginnis’s presentation about flying VLATs (Very Large Air Tankers). Mark is an A&P with IA (Airframe and Power plant mechanic with Inspection Authorization), as well as a very accomplished Commercial Pilot and instructor. He is right-seat certified in the McDonnell Douglas DC-10-30 air tanker, which is Part 91 Certified in the Normal Category. Each of its three GE CX6-50C turbofan engines (94” fans!) is certified to produce 51,000 lb. ft. of thrust. The DC-10 is the second largest of the VLATs, after the Boeing 747 tanker. To give you an idea of its size, each of its inboard flap sections is the size of a garage door! It has a computerized Flight Management System, but the panel is mostly comprised of steam gauges. The aircraft is one of the last to require an Flight Engineer, who does the actual drop of fire retardant on the pilot’s command (I thought he was supposed to drop it on the FIRE, but hey, what do I know?). Each drop uses \$40K of fire retardant, which also serves as fertilizer for new growth. The tanker weighs 350,000 pounds on arrival at a fire, and considerably less after the drop, as the tank holds 84,000 pounds. Considering that it is certified to 590,000 pounds, its power-to-weight ratio is outstanding. Fuel load is 90,000 pounds max, which can be refilled in 15 minutes with three fuel hoses at airports such as Phoenix-Mesa Gateway. Loaded cruise speed is only 290 knots indicated, which trues out to 350 knots, at 12,500 feet (faster at up to FL 280). Naturally, fuel economy is terrible at low altitude and high weight. On a run, auto throttle controls airspeed at 150 or even 140 knots with leading edge slats at 19° takeoff position and flaps at 35°. Runs are always done from high to low; as Mark told us, “Dropping uphill - there’s no future in it!” The rudder of the DC-10 appears to be small, but it is a double-rudder with two separate hinged sections. It is the same type of rudder as is found on the Boeing C-17 Globemaster cargo plane, and is quite effective. The drop zone is a TFR (Temporary Flight Restriction). A helicopter with a pilot and a “real fireman” orbits up high to direct the show, and an AeroCommander leaving a smoke trail guides the air tanker pilot on his run. Mark was very clear that the air tanker does not put out the fire; it just lays down retardant to give ground to the ground-based fire fighters. Retardant can be dropped as quickly as 4 seconds, or can be stretched out to to 10 seconds, a 1-mile long strip. Despite flying at 150 feet AGL (Above Ground Level), done right, there are no “Oh s__t!” moments. Mark also told us that he recently was requested to “drop the RAT” on a flight. This is not a version of a bombing run employing rodents instead of fire retardant; the RAT (Ram Air Turbine) is an air-powered generator, meant to provide emergency power and hydraulic pressure. It is deployed into the wind stream and makes quite a racket, but needs to be tested for function occasionally. When asked, Mark replied that the cabin of the DC-10 he flies is mostly empty, with the exceptions of tool boxes, spare parts, and, most importantly, not one, but two lavatories.

The next meeting will be on Saturday, November 21 at 10 AM at the hanger of Jerry Miel at Ryan Field; directions will be provided on the website and in the newsletter. The featured aircraft will be two, or maybe three Thorp T-18 plans-built airplanes. We will also discuss the Cessna 140 project and the election of chapter officers and board members.

Respectfully Submitted by

Secretary Bob Miller