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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:

Kevin Byers
3721 W El Moraga Pl
Tucson, AZ 85745

Do not send payment to the newsletter editor!

Ryan Airfield
EAA chapter 81 Hanger E7
November 20, 10:00 hrs
Directions to hanger E7

Chapter 81 received a donation of a Stitts Playboy SA-3B. The plane needs a thorough condition inspection to return it to service, This is an opportunity for the membership to assess the volunteer availability, identify an appropriate condition inspection check-list, and to plan / schedule the work parties.



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

Click on the link below to see aviation events around Arizona

[Arizona Aviation Events](#)

Dave Jaksha

Under the “Aviation Links” tab on the eaa81.org web site are links to the following presentations that Erik Fjerstad has presented to Chapter 81

My quest for power
Erik Fjerstad

Electric Aircraft
Presentation to EAA Chapter 81 May 15 2021
Erik Fjerstad

Battery and Starter Systems
for aircraft.
Erik Fjerstad EAA Chapter 81



N721EF Paint
Erik Fjerstad



Erik Fjerstad

The November meeting will be in the chapter hangar and will feature a review of the chapter's aircraft acquisition - the donated Stitts Playboy SA3B. We had a successful wash-up event to kick off the "make it flightworthy" project. Moving the aircraft outside the hangar, a work party rinsed and scrubbed 10 to 20 years of grime off of it.



All cleaned up, it looks much better!



The work party included Jeremy Blacketter, George Snyder, Bob Miller, Eric Witherspoon, Virgil Wesley, Jim Keown, and Norm Radtke. Member Jeremy Blacketter volunteered to lead the early effort to get the airplane "airworthy", which will involve performing an extensive "condition inspection". I challenged the team with the goal of having the aircraft "opened up" and the inspection in-process in time for the November chapter meeting. I have provided Jeremy with the contact details for the members who responded with interest in this effort. Anyone else interested should contact Jeremy, whose contact details are in the roster available to members.

Bob Miller

EAA Chapter 81 Minutes
October 16, 2021

President Erik Fjerstad opened the meeting at 10AM in the Ryan Airfield Administration Building meeting room.

Secretary's Report - Secretary Bob Miller was not present, so to our dismay, we were unable to force him to read his previous meeting minutes. We therefore reluctantly approved them as posted in the newsletter.

Treasurer's report - Kevin Byers reported the chapter's bank balance is 11,300 after the deposit of the proceeds from the sale of the chapter's donated Cessna 140 aircraft.

New Business - Tim Kaping of Tucson has a Stitts Playboy SA3B aircraft (2-place, side-by-side, tailwheel) that hasn't been used for some years and has agreed to donate to the chapter. I brought the offer to the chapter board and received a unanimous (of those responding) affirmative agreement. Our options upon accepting the aircraft would be to sell as-is, make flyable and sell to a 3rd party (person or flying club), or donate as-is to a museum or other 501-c3 organization. This was described to the chapter in the monthly meeting and vocal concurrence was received. The aircraft will be formally transferred to the chapter and moved into the hangar after the meeting.

Next up was the featured speaker, Erik Fjerstad, presenting on aircraft starting systems including batteries, interconnecting cables, and starters. Erik presented an overview of aircraft starter systems including how the components are configured including size and capacity. From first principles Erik calculated the power needed to adequately spin up a Lycoming O-360-A3A (180 hp, 8.5:1 compression). The estimated peak power was 3 hp, with an average of 2 hp once rotating, implying peak currents of 300 amps and continuous currents of 200 amps, which compare favorably to measurements taken on Erik's aircraft.

At these currents any resistance in the system, whether cables, connections, or internal battery resistance, is unwelcome. Traditional voltmeters and ohmmeters can be used to assess most cables and connections, with a good guide being a maximum of 0.5 ohms total for all interconnect (cables from the battery (plus) to the starter relay, the relay itself, the cables from the starter relay to the starter, and the cable or path from the starter case (ground) to the battery negative. , The assessment of battery performance requires more specialized tools. Generally, the battery must be loaded to 300 amps and confirmed to maintain at least 8 volts. If an airplane engine won't start because it won't "crank over fast enough", the current and voltage at the starter can be measured during the start attempt and the general diagnosis is..... voltage above 8 and inadequate spin means a bad starter. Voltage below 8 and current at or below 300 means a bad battery.

The test should be repeated measuring the voltage at the battery during the test, and if the voltage at the battery (+ to -) is more than 2v higher than the voltage at the starter (starter + to case) with the current over 200, there is a connection problem that should be tracked down - the wire gauge is too small, or the bolted connections are loose, or the starter relay is bad. Erik presented details on a number of test instruments that he has, including a 600 amp DC meter that clips around the battery lead, a 500 amp variable DC load for battery testing, plus a battery conductance tester that rapidly performs a load test to determine battery health and internal resistance. A healthy Odyssey battery will have a CCA of over 500 and an internal resistance of less than 10 milliohms.

Readings of less than 200 CCA and more than 15 milliohm suggest a problem worth investigating with a variable 500 amp load tester. If you have a starting problem and have any doubt as to what the root cause is, have Erik help you work it out. Erik also presented information on current battery technologies including the new Earth-X lithium iron phosphate batteries now finding their way into GA aircraft.

The next meeting will involve a review of the Stitts S3AB project in the chapter hangar on 20 November.

Respectfully,
Erik Fjerstad

Vintage Warbirds and Pancakes

Falcon Warbirds utilizes the funds for Missing Man Flights at the National Cemetery (fuel reimbursement). The Aviation Explorers use the monies to maintain their aircraft for youth instruction (both Maintenance and Flight).

The third Saturday of every month October to May. Thank you for your assistance!

Regards,

Scott Andrews
Falcon Warbirds
602-705-4413



**FALCON FIELD
PANCAKE
BREAKFAST**

Bring your family and friends to see Vintage Military Warbirds in a Historic WWII Hangar and enjoy a hot and hearty breakfast served up by Falcon Warbirds Pilots and the Aviation Explorer Post 352!

7:30 am - 11 am
Falcon Field WWII Hangar
4626 Fighter Aces Drive
Mesa AZ 85215

Dates
2021
November 20
December 18

2022
January 15
February 19
March 19
April 16
May 21

Menu
Pancakes
Scrambled Eggs
Sausage
Orange Juice
Coffee

\$8 at the door
Donations Appreciated

602-705-4413

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:

11/17/21

12 p.m. CST

[Young Eagles Digital Signature App](#)

David Leiting and Charlie Becker

Learn how to use the new iPad Young Eagles digital signature App. EAA Eagles Program Manager David Leiting and Chapters Director Charlie Becker will discuss this new tool for the Young Eagles program.

11/17/21

7 p.m. CST

[Bravo Buster: Adventures In and Around the National Airspace System](#)

Qualifies for FAA WINGS credit.

Laura Herrmann

"I have a phone number for you to call when you are on the ground, advise when ready to copy." Those are words no pilot wants to hear! Join Laura Herrmann as she describes her inadvertent foray into O'Hare Class B airspace and the events that followed. She'll also discuss her flight around the Washington, D.C., SFRA, including what kind of training is involved. Additionally, she'll be answering the questions: what's the Fluky gate, why is the Leesburg airport special, and how are P56 and R-6608A different? Join us for a tour around some challenging and difficult airspace

12/1/21

7 p.m. CST

November 2021

EAA Chapter 81

Tucson, AZ

Prop Overhauls

Qualifies for FAA WINGS and AMT credit.

Mike Busch

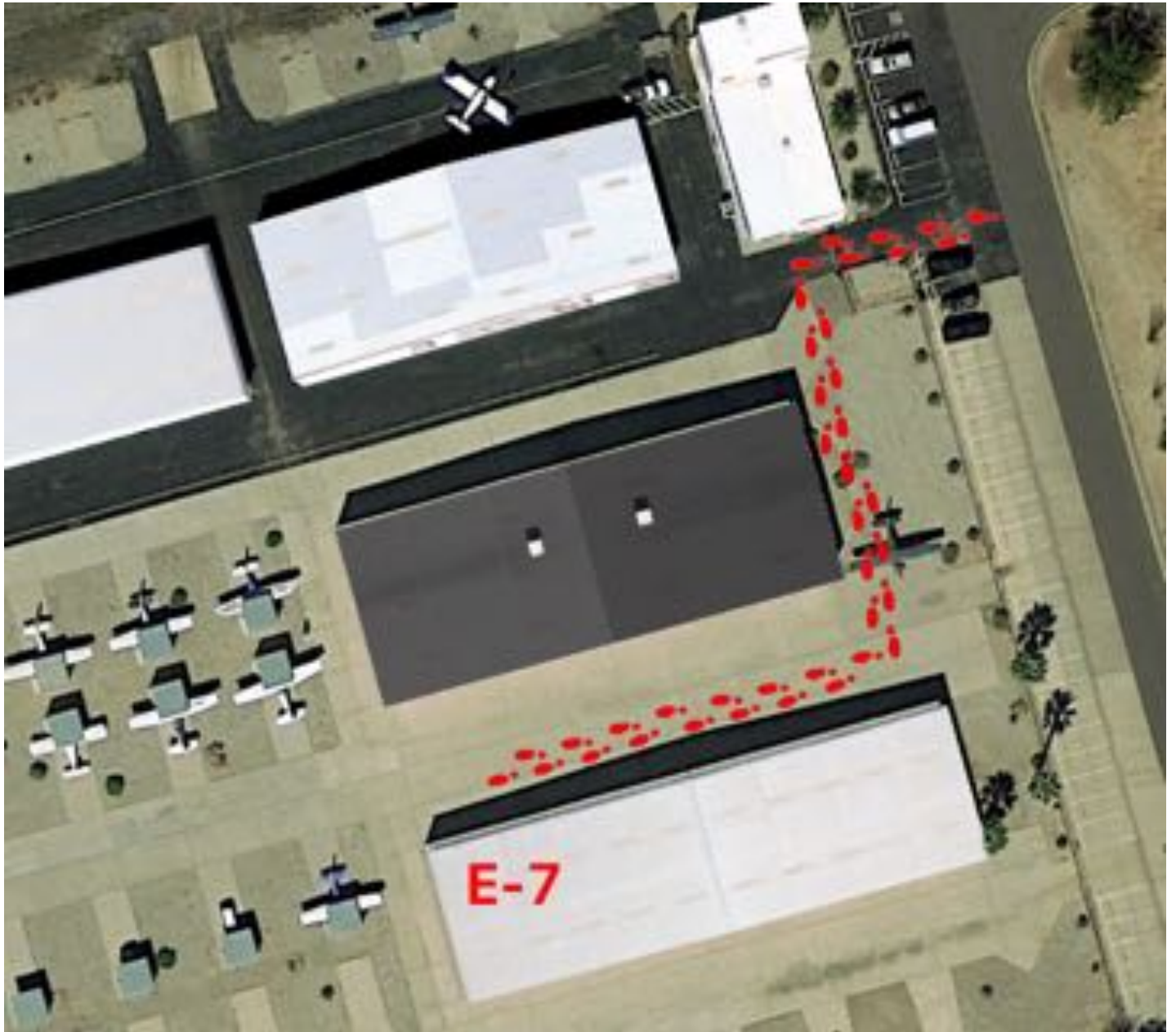
*Most props have a TBO of **2000-2400** hours and 60-72 months, whichever comes first. You'd have to average more than 400 hours/year for the hours to come first. For most of us, the months come first. For a typical GA airplane that flies 100 hours a year, the prop may come due for overhaul in less than 500 hours. Do we have to overhaul our props that often? Does it even make sense to do that? Mike Busch deconstructs these TBOs and offers specific money and downtime saving recommendations*

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 hangar! Send email to newsletter81@eaa81.org with a pic, description and contact information.

De Havilland DH-4 Replica for sale. Certified March 1989, Debut Oshkosh July 1989, Featured EAA Sport Aviation May 1990, flew in AZ Centennial event. TTAF 1873, Lycoming 0320 B2C, TSMOH 1194.2020 condition inspection. Extensive documentation. Price negotiable, hangar storage available (RYN). Contact Brian Becker 520-250-7027

Here is a link to some info about the DH-4 Replica from the [EAA81 Skywriter Sept. 2009 newsletter](#).

My name is Jeremy, and I've been an A&P since 1997. For those of you who don't have your repairman certificate, I'm available to chapter members to do annual condition inspections on your experimental aircraft.

I welcome and encourage owner assistance.

Rates are negotiable, and depend on level of owner participation.

I'm also available to help out with maintenance on your certified aircraft.

Call, text, or email:

[520-834-2584](tel:520-834-2584)

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





Glasair SH-2F o-320 engine 150 hp 1140 hours engine & airframe
Long wing
Vision Microsoft engine instruments with eng analyzer
Duel ElectroAir CDI ignition
Phoenix Halon Eng. fire system
Narco com
Transponder & Encoder
Navaid analog auto pilot

Price \$38,500

Chuck Valade
(586)707-4032

Check out our Chapter Facebook Page!
<https://www.facebook.com/ea81.org>

**Please send items of interest, classifieds, etc
to**

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 or to Dave's address on home page.



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