

EAA Chapter 81 Meeting Minutes
November 21, 2019

Meeting was called to order by President Erik Fjerstad at 1000 at the Chapter Hangar. The meeting was moved from last Saturday because both President and Secretary had other obligations that week.

Secretary's Report: Bob Miller offered to read the Minutes of the October 19 meeting. There were no takers. The Minutes were approved without being read and may be found in the newsletter and on the website.

Treasurer's Report: Eric Nelson tells us that we have \$5,526.96 in the bank. This is after we donated \$3,000.00 to SATA (Southern Arizona Teen Aviation). Our Chapter Hangar is paid up through December. Renewal of our Charter with EAA will be up 15% from the \$520.00 we paid last year. President Fjerstad points out that we are a non-profit; most EAA Chapters do not keep bank balances this large, so we would do well to find appropriate ways to distribute our monies for Chapter activities, tools, appropriate donations, projects, etc.

Confession: Bob Miller tried to wear too many hats at the last meeting. He substituted for President Fjerstad as President pro-tem while trying to function as Secretary. Apparently, some thought that he should be Treasurer as well: two people handed him \$20 (each) in cash to join or renew Chapter 81 membership. One was Fred Love. Bob forgot who the other one was. Please call Treasurer Eric Nelson(520) [222-4878](tel:5202224878) to let him know who you are. President Fjerstad says that paying by check insures that we have a record of who paid what.

New Visitors: Mike D'Amiko moved here from Boise, Idaho. He was part of a builder group that built 14 (!) Kitfox Series 7 aircraft; his is currently in Boise. He lives in Oro Valley and is looking for a hangar, perhaps at La Cholla Airpark. Rick McClellan is a snowbird from Chapter 1414 in Poplar Grove, Illinois. He flies a Cessna 170B. Ken Ballenger is a new member who wants to get into ultralights. He is looking at a Firefly project and also at the Hummel UltraCruiser.

SATA News: Tito Sanchez reports that the first RV-12 constructed by the high-schoolers flew last Saturday with Tito at the stick. He is currently taking it through the 5-hour Phase I testing required by the FAA for E-LSA (Experimental Light Sport Aircraft). This short testing period is permitted because it was built exactly the same as the factory-built S-LSA (Special Light Sport Aircraft) with no changes permitted, not even type of battery nor brand of tire. The RV-12 kit differs from all other current Van's Aircraft offerings in that it is an LSA, primarily uses pulled rivets, and is absolutely complete, including rivets, tires, battery, instruments, engine, and propeller. Tito, a retired airline Captain and former fighter pilot, built his own RV-12 and has been flying it for years. He is, to say the least, abundantly qualified to act as test-pilot. Chapter 81's donations to SATA, along with those of others, have been well-spent, as we are supporting the Experimental/Amateur-Built mission of Education and Recreation, as well as introducing young people to General Aviation. The students are now working on the second kit fuselage, having already completed the empennage, tail cone, wings, and flaperons. The third empennage has already been ordered, and the finishing kit for #2 will hopefully arrive in January. After all of the students have been flown in #1, it will be sold to help finance SATA's future kit purchases.

Old Business: The ongoing saga of the Chapter Trailer continues. President Fjerstad hauled the trailer to the meeting so that everyone could take a look and decide what should be done next. Issues include:

1. making a decision about whether to keep the side walls openable or fixing them in place.
2. finding a team leader to ramrod the restoration of the trailer or:
3. selling the trailer and purchasing something smaller and newer.
4. fixing the brakes and repairing the tongue.
5. putting the project on hold again, if no team leader comes forth at this time.
6. Health Department rules on vending food.

After an inspection, it was found that the damaged trailer tongue would be fairly easy to repair, although some cutting and welding would be required. Erik Fjerstad has said that he has the means to do this, as well as to get the brakes working. The moveable side walls present a difficulty in weather sealing; the majority voted to make them fixed or even to replace them with lighter-weight material. Cosmetics should not be an issue, as Jason McCoy has offered to vinyl-wrap the trailer, even offering custom graphics. It was pointed out that a smaller trailer would not be able to carry all the tables and chairs, as well as all the cooking equipment and supplies needed for a pancake breakfast. The possible issue of Health Department intervention could be easily avoided by requesting a donation, rather than charging a fee for the Pancake Breakfasts. The consensus of opinion was that, as no Team Leader has volunteered at this time, the project should be put on hold for the time being. Many are willing to volunteer to work on the project, but no one can make the time commitment required at this time to be the Team Leader. Storage is not an issue, as we have free outdoor parking on the east side of Ryan Field for the foreseeable future.

New Business: Greg Duncan attended the Ryan Field information meeting on Thursday, November 21. Details of proposed changes are available at www.ryanmasterplan.com.

Presentation: President Erik Fjerstad on TCAS (Traffic Collision Avoidance Systems)

Disclaimer: As usual, this is not a complete transcript, but a report of the highlights of the presentation, meaning that Secretary Bob cannot scribble as fast as the presenters can present, at least, not legibly. Come to think of it, Bob cannot scribble legibly at all, so it's a miracle that any of this stuff is getting to you.

There have been aircraft collisions for as long as there have been aircraft flying or taxiing, but that of a TWA Lockheed L-1049 Super Constellation and a United Airlines Douglas DC-7 over Grand Canyon National Park in 1956 got the attention of the FAA. A total of 128 were killed, the first time that more than 100 died in a commercial aircraft incident. It was decided that a better system for collision avoidance was necessary.

An early attempt was an Air Traffic Control Radar Beacon system (transponder) which evolved into ever-more informative systems through TCAS I-IV versions. The latter required 5 to 10-element receivers and cost \$50K to \$150K, but were effective and are still required of air

carriers. There were also much more economical systems, such as the ZAON portable TCAS system, which they called PCAS, available to general aviation.

Now we have ADS-B (Automatic Dependent Surveillance - Broadcast), a satellite-based system which will be required of all aircraft to fly in Class B or C airspace starting in January, 2020 as part of the FAA's NextGen program. Actually, only ADS-B Out will be required, as it will inform ATC (Air Traffic Control) of the aircraft's identification, altitude, heading, and groundspeed, using the aircraft's own instrumentation, rather than radar. In most cases, the newer system will provide more accurate data to ATC. A Mode-C transponder will still be required, however. Although ADS-B In is not a requirement for flight in controlled airspace, it does provide an abundance of useful information, including free weather service, flight information, and traffic (it can pinpoint other ADS-B-equipped aircraft on a screen). TIS-B (Traffic Information System-Broadcast) is a U.S. only system that can provide the same information about non-ADS-B-equipped aircraft, using radar information and ground transmitters, at no extra cost. In the U.S. only, an ADS-B Out transmitter can transmit on the UAT (Universal Access Transceiver) frequency of 987 MHz, but the rest of the world (as well as the U.S.) uses what is called an ES (Extended Squitter) frequency of 1090 MHz, with 250 watts of broadcast power. A few pilots who do not typically use controlled airspace have avoided the complexity and expense of ADS-B. Another reason might be that they do not like having Big Brother watching them every time they fly. However, as the majority of aircraft with electrical systems will be so equipped, general consensus is that the air traffic system will be overall safer with more awareness available to most pilots. Of course, no Traffic Collision Avoidance System will be effective if pilots don't look outside the aircraft while aloft, an increasingly worrisome issue, as so much information is now available on the screen, pilots may rarely use that reliable but low-tech back-up system, the window.

Respectfully Submitted by
Secretary Bob Miller