

Southern Arizona Teen Aviation Inc .
P.O. Box 87364
Tucson, Arizona 85754
Phone 520-247-6232
501c(3) tax ID 81-4565999



Proposed Method of Operation

May 13, 2020

We are a group of about 10 experienced aircraft builders that are instructing and guiding a group of 5 to 10 young people that are currently attending high school on how to build, operate and maintain an experimental aircraft. We are using a Vans Aircraft RV-12 for the build. Our final product will be built according to plans and certified as an E-LSA

We started building in March 2017 and have completed, flown and sold two airplanes. We have a third airplane about 90% done and a fourth one about 30% done.

While the final product will be an airplane our hope is that each student will learn skills that will serve them throughout their life. We are interested in including anyone that has an interest in aviation, has at least a 2.5GPA average in high school, reliably attends the build sessions, and demonstrates the ability to use the tools in a safe manner. Anyone that is deemed to be unsafe will be asked to retire from the build. Since we will have a waiting list at least a 75% attendance to build sessions will be expected. Less than that could result in the student being dropped from the program.

Each member of our all pilot volunteer mentor group has built a Vans aircraft. 2 of them have built RV-12's. Our group includes licensed Airframe and power plant mechanics, retired airline and commercial pilots, helicopter pilots' and retired businessmen

The build is being done in an empty double wide motor home garage. The address is 8101 N. Como Drive, Tucson, Arizona. We are getting together to work 2 days/evenings a week to build the airplane. There will always be at least 2 volunteer mentors present. Our plan is that a dedicated volunteer will be with a group of 2-3 students all the time that they are working with

tools, practice projects or on the aircraft. We may have 2 to 3 groups doing various parts of the build. We want the kids to build 99% of the airplane.

Our program will follow the steps below:

1. Instruct each student and volunteer of Safety rules and guide lines. **Safety glasses required at all times by everyone. Hearing protection as required. Alcohol and Tobacco are not allowed on the premises.**
2. Instruct each student and volunteer in use of tools- demonstrate how to use basic hand tools, power drills, rivet squeezers, hand & pneumatic blind rivet pullers, and other aircraft building tools. Followed by student practice.
3. Students will practice with sheet metal projects before starting to work on the plane
4. Instruct students on reading and using building plans
5. Instruct students on receiving, inventory and sorting of the parts of the aircraft kit.
6. Aircraft completion and final testing prior to first flight
7. First flight done by an experienced RV-12 pilot.
8. Instruction on servicing and maintaining the aircraft using kit provided manuals.
9. Flight instruction for those interested and qualified.
10. We have the following electrically driven power tools in our build hangar
 - a. Hand held drill motors
 - b. Dremel rotary motor
 - c. Bench mounted Drill press
 - d. Bench mounted 6" table sander
 - e. Floor stand mounted motor driven scotch bright wheel. Used for deburring.
11. Each student must demonstrate safe use of the power tools and receive a mentor sign off before they are authorized to use the too.
12. Our build sessions happen 2 days per week for 3 hours each day.

13. At the completion of a session the tools are all put away, benches are cleaned and the floor is swept.

Phase 1 flight testing and Beyond

A Vans aircraft RV-12, E-LSA, requires 5 hours of flight testing to complete Phase 1 testing. Phase 1 will be completed by an experienced RV-12 pilot, who will also be appointed as our chief pilot, in accordance with the flight testing manual provided with the kit.

After Phase 1 is complete any additional pilots must meet the following criteria:

1. Minimum FAA issued Private, sport pilot license or student pilot license
2. Minimum 500 hours total time for certified pilots. Student pilot solo as determined by flight instructor and required to complete sport pilot requirements. No solo or pleasure flights outside of those required for training.
3. Minimum of 2 hours instruction or solo in an RV-12.
4. Sign off by Southern Arizona Teen Aviation chief pilot.
5. VFR flight only

After Phase 1 completion the aircraft will be used for:

1. Demonstration and introductory flights
2. Flights to Airshows for display
3. Primary flight instruction by a CFI only
4. Instructional flights authorized by a CFI required to meet sport Pilot license requirements.

Ongoing Maintenance:

1. Van's Aircraft has published a Service and Maintenance Manual for the RV12 which will be used as the primary guide to insure that the plane remains airworthy
2. Maintenance work will be signed off by one of the following people:
 - a. The person that receives the repairman's certificate for the aircraft we build
 - b. A licensed aircraft and power plant mechanic
 - c. A person that has completed the Repairman's certification class for the RV12.

