




# The Flightline

EAA Chapter 958 San Marcos, TX  
Where every day is a good flying day!  
April 2015 Issue

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**April Chapter Meeting**  
**at Redbird Skyport**

*The April meeting will begin with a pancake breakfast at 9:00 am followed by the regular meeting at 10:00 am Saturday 3/18/15.*

**Program: Travis Ahlhorn owner of Specialized Aero on "Welding the Steel Tube Frame"**

## Prez Sez

Howdy all

It has now been just over a year since our move to San Marcos. Over the last several months I've had the pleasure to communicate with many of you about our chapter. The move to San Marcos has not been without issues. But the chapter leadership has taken these items and worked through each. This move has made clear to me that all chapters have issues that they deal with on a regular basis. It is and has been our goal to bring members of chapter 958 activities and information with regards to aviation. Our decision to move our chapter location, I believe has been a good one. As we move forward from this point we will present more activities and helpful information that will make your EAA and chapter membership an even better experience. We've a good home at Redbird and if you can support these folks in any way please do so. To all chapter members old and new thanks for being a 958 member.

Most all members I do understand have paid your chapter dues at this time and we thank you for doing so. The chapter dues have been our only source of income over the last few years. As a chapter we've not done any fund raising and we do have some expenses throughout the year and dues help cover these. The chapter membership and or renewal form which is located on our web page should be enclosed with your payment. This form helps us stay current with your contact information for the purpose of keeping you informed on chapter activities and functions. Also for you to receive the monthly news letter. The dues are 25.00 dollars for new members the first year there after 20.00 dollars. Five dollars of this first years dues help offset the name tag which you receive upon joining the chapter. In regards to name tags I will have the new ones present at the meeting on the eighteenth of April. So please try to attend. I'll retain those for anyone that will not be there. Just see me the next time you attend to receive your new one.

The pancake breakfast will continue this month starting at 0900, we have a speaker on tap for the meeting, and John Koenreich will give a brief on the upcoming fly-in in March. As of this time we will need some planes and pilots for our walk up young eagles, a few bodies to man our EAA and chapter booth, a few to work the concession stand, a few extras for general duties helping out us and Redbird. Having said same I was contacted a few weeks ago by chapter 35 of San Antonio they will participate in the 100 year anniversary of Stinson airport here in San Antonio. They have been asked to provide young eagles flights for the area school districts with students enrolled in the STEM programs. They asked our chapter for help with planes and pilots for which they have a great need. This will be on our meeting weekend the eighteenth of April. If you can fly for them that Saturday please let me know. We after all are a volunteer organization for the advancement of aviation. We should try to support any EAA function if possible. This is asking a lot as we have our own function just down the road. But as it is said you scratch my back; I'll scratch yours. We are one of three EAA chapters located in the central Texas area Having a talk with those other chapters We can all work together to support each other and EAA.

Hope all had good day Easter see you on the eighteenth.

Phillip Steele

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## From the Editor

EAA Chapter 958 is beginning to get busy this year. We have a chance to work with and support Redbird Skyport in their first Fly-in on May 30th. We now have a full compliment of chapter officers on board. Will Hartsell and Steve Sewell have agreed to be Secretary and Treasurer respectively. When you see Guy Bowen and Phillip Steel, be sure to thank them for their hard work in their respective offices as well as providing the pancake breakfasts we've been enjoying prior to the meetings. And don't forget Stan Timmerman who has been diligent at keeping the chapter website up and running and Mike Short who has been coordinating Young Eagles activities.

Last month we were fortunate to have Erik Svendsen, GM of McKee Avionics talk to the chapter about the merits of EFIS instrumentation for your aircraft vs. the steam gauges. Due to the many questions fielded on another topic he has graciously consented to do a follow-up presentation in June on--our old friend ADS-B. This month Travis Ahlhorn, owner of Specialized Aero, will be discussing welding tactics related to construction of steel tube framework. And in May we have John Brecher, Sportair Workshop instructor providing insight into sheet metal construction techniques. Please everyone come on out and thank these folks for their time and expertise.



And lastly I'd like to get input from the members on their planes and projects for the newsletter. One of the objectives of the EAA experience is to share the joy, the learning experiences, the frustration and the Ah-Ha moments with fellow aviation enthusiasts. We all have something to share with others. Kind of like the guys to the left sharing a good pancake breakfast and aviation tales.

# The Aircraft Scratch Builder

by Stan Timmerman

My airplane building started with a hydraulic press. I tried to get Larry to tell me that you needed a press to build a Van's RV, but he did not agree. So, that was the end of my building an RV. I switched over to a Bearhawk Patrol. A hydraulic press is not needed for that airplane either, but it makes the going faster. The most important tools are woodworking tools: saber saw, table saw, drills, and router. By carefully selecting pneumatic drills, I was able to justify an air compressor. I needed that air compressor because



“My” hydraulic press would have an Air/Hydraulic bottle jack..This is what I was after.

It would be easier and cheaper to buy something like this from Harbor Freight. This version is nicer in that it has a pneumatic pump – as opposed to a hand operated bottle jack.

Good luck trying to find material in the scrap yard. I made such a nuisance of myself that they probably will not let people roam around there anymore.

The press to the left is the goal. This is the work I did to justify making a press.



I use a valve spring compressor to hold a drill bushing for sheet metal blanks



Then, I group the blanks together and use a spiral router trim bit to cut 5 at a time.



The blanks come out in good shape. Unfortunately, they have sharp edges and have to be deburred. I want people to make airplanes, so I will not show the boring deburr process.



(Scratch Builder cont.)



Magically they are all deburred. Now I place them on my bending form and tap the edges over.

I then place them in my press and crush them by pushing a button.

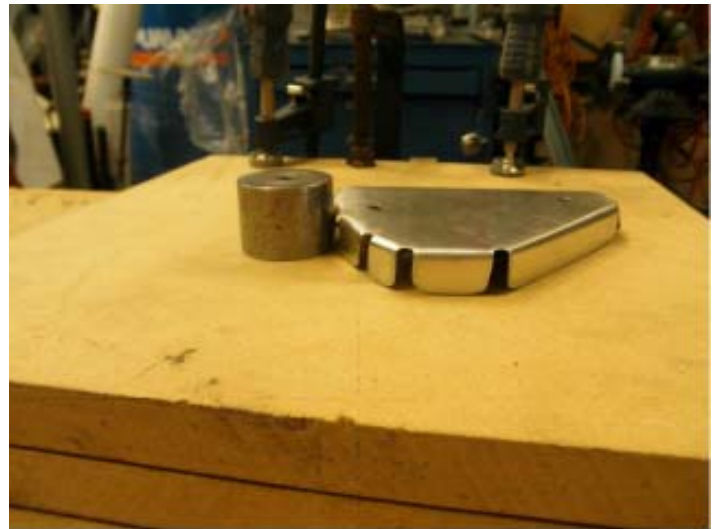


Even with a press there is a spring back of about 11 degrees.



This jig will finish the flanges

Check for a right angle. There are 60 of the ribs about this size.



This final picture shows my plan coming together. You simply place a piece of chicken in a bag. Then push a button, and you have a chicken fillet as thin and tender as one desires. I was going to show you the chicken sandwich that I made, but I ate it before I could take a picture.

For those of you that do not know, my wife helps me with my spelling and edits my articles. There is no danger of her seeing that I cook her food by this method. Frankly, she would eat it if I dropped it on the floor so long as she does not have to cook.

My daughter is the problem. Her head would explode if she knew I cook her chicken sandwiches by starting in the garage. Fortunately, she never goes in the garage and will never know.

Next Month:

How to get unpasteurized apple juice by building an airplane.

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# The Builder Assisted Annual

by R. Ross

Well the time for the annual on my PA-28 rolled around last month and I made an appointment with our chapter Technical Advisor, Steve Dixson to take a look at the old gal. Steve is a believer in the owner assisted annual for certified aircraft with the idea that the more you know about your own airplane, the better prepared you will be to manage it's airworthiness and diagnose problems.

Steve's shop is located at the Gonzales airport, just a short drive or flight from most areas in central Texas. He estimated the time for the annual on a basic aircraft like mine would be 2 days barring any major problems or parts that needed to be replaced. True to his word the actual work was less than a day and a half. Being a novice pilot and brand new to aircraft ownership I've been reluctant to tackle maintenance issues by myself, but I must say, assisting with the annual was a most excellent learning experience. Luckily, only minor issues were found, and nothing that would prevent the plane from finishing the annual and getting back in the air.

The engine work was some of the most interesting aspects of the annual from tricks for a clean oil drainage to cleaning the Spark plugs. Cleaning the plugs consisted of 1. Inspection - for any anomalies and to check for a normal looking gap and electrode; 2. media blasting to remove major residue from the electrodes and 3. using a tiny vibrating probe, cleaning out and removing any lead deposits along the sides and floor of the electrodes.

The compression test involved placing a pressure probe in place of one of the spark plugs and carefully rotating the prop until the highest pressure is registered on the pressure gauge.

And last, a borescope was used to check the interior of the cylinders for any visual anomalies. and again everything looked pretty good. The findings as a results of the annual were: 1. Vertical tail light inoperative, 2. CHT sending wire broken, 3. Cracked nut on one spark plug wire connection.



Set up for a clean oil drainage



All jacked up ready to clean and pack the wheel bearings

Keep in mind this is just a sample of the work done during the annual but it is well work the time and effort. So far the light has been replaced, a new CHT sending wire has been ordered, and I'm watching the spark plug wire attach nut for further signs of fracturing.

To sum it up, if you have never done an owner assisted annual on your certified aircraft, try it, its a great learning experience.



# The Llano STOL Roundup

by Stan Timmerman

My wife and I enjoyed the Llano TX Roundup held April 11. For someone new to the STOL world the rules of the game are hard to explain. One of the tests for private pilots is the short field landing. It is not easy for a beginner. All I can say is that the worst landing I saw during the day was better than any landing I ever did.

The problem with a write up is that it does not do the event justice. You really need to watch the video. A photo snap shot shows most contestants hitting the line. That by itself is an accomplishment. These guys are judged by how much further they travel after hitting the line. The crowd was full of advice on the side-lines for each try – easy to have those opinions when you are not in the cockpit.



I did not see the final score but, I am pretty sure this is the airplane that won the short field landing competition. To see why I think that I will place a video on the website.

<http://www.958.eaachapter.org/>

This is a Bearhawk LSA



To the left is the Bearhawk Patrol 2 place.





Many versions of cubs competed. This competition generally favors the classic outline of a J3 cub.

This was a new event introduced this year. The landing must begin after the wheels clear the top of the pylons or obstacles, which were inflated.



We had lunch at the field and drove into Llano on the way out, stopping by their Fire Department fish fry.

My wife said something about seeing lots of wildflowers, but I only saw airplanes.



# Safety Corner

## Aviation Safety Programs and Webinars

### EAA Sponsored webinars (free)

**April 14 - 7 p.m. CDT**

[EAA AirVenture Oshkosh Mass Arrivals](#)

Presenter: Chris Henry

**April 15 - 7 p.m. CDT**

[Introduction to Float Plane Techniques](#)

**FAA Wings Credit**

Presenter: Steve Williamson

**April 29 - 7 p.m. CDT**

[How to Buy a Used Light-Sport Aircraft](#)

Presenter: Prof. H. Paul Shuch

**May 6 - 8 p.m. CDT**

[Engine Teardowns](#)

**FAA AMT & Wings Credit**

Presenter: Mike Busch

**May 13 - 7 p.m. CDT**

[Flying a Jet-Powered Glider and the SubSonex Jet](#)

**FAA Wings Credit**

Presenter: Jeremy Monnett

**May 21 - 7 p.m. CDT**

[Emergency Bailout Procedures for Pilots and Survival Equipment](#)

**FAA Wings Credit**

Presenter: Allen Silver

**May 27 - 7 p.m. CDT**

[Flying with Your iPad using WingX Pro7](#)

Presenter: Jim Sweeney

