

First Flight

Bob Rudolph

A projects maiden flight ...

is always big news. It's even bigger news when it happens at Buchanan Field and the project belongs to a chapter member who has reported on his progress at the monthly meetings. This flight qualifies because it took place at Buchanan Field.

Mike Reinath's beautifully built Lancair 360 flew on February 8th with Race Pilot Dave Morss at the controls. Members who observed the takeoff said that Morss completed a fast taxi and continued around to take-off without interruption.

Mike lives on the Peninsula and reports spending 8000 hours over 5 years to complete the standard build kit. He has seen 196 knots true at 6000 feet with 25X25 engine settings. Members who have seen the plane comment on its remarkable fit and finish. The Lancair is hangered in Ray Neilson's hanger along with John Cicero's fully aerobatic clip wing Taylorcraft. What an interesting combination.

Looking out my hanger door the other day, I saw the Lancair in the pattern doing touch and goes. With the three blade composite propeller and exceptionally strong O-360 it makes very distinctive sound. Good to hear.

Good luck Mike! ■

Attend The Meeting –

Wednesday, February 27, 2002. The former PSA Airline Terminal building on the East side of Buchanan Field. 7:30 p.m. sharp. This month's speaker is David Turner of Smith/Barney speaking on the topic "Investing at Altitude"

See the map on the back page for meeting location.

(Who can point out the location of the original Terminal building?)

Yes, Mr. Pilot, you can pass it on...

Duane Allen (currently vacationing in Australia)

It is success stories like this that give us our rewards for all those kids we fly in the Young Eagles program.

Kevin was too old to be a young eagle the first time I took him flying. I had given his two brothers and a friend a Young Eagles ride the day I sold his brother Robin my Firebird. Kevin was very interested in learning to fly so I submitted his name to the AOPA Fresh Start Program. I just received this email from him and wanted to share it with the chapter so the rest can see the effect we can have on young people by sharing our time and our airplanes with them.

From: Kevin Albertsen

Duane- Sorry it has taken so long for me to update you on what I am doing.

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FYI...A New Feature

Please see the **Further Information** feature on page 3 for additional pictures, articles and Information.

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Get Your Cleco on the Internet...

WWW.eaa393.org Copies of the Cleco are available from the chapter web site in Adobe® Acrobat® format for your downloading convenience. Be sure to check out the other interesting features on the Web site.

He Followed the First Rule...

Bob Rudolph

It is always good to report that one of our members has followed the most essential rule of piloting when involved in an emergency situation.

“First Rule – Fly the Airplane”

Members Greg McCurdy and Ward Como were doing some touch and go practice at Rio Vista (O88) when the engine in Greg's newly acquired Pup suffered from an accumulation of carburetor ice. The prop stopped in the same plane as the wings at about 200 feet. Greg remembered that first rule and was able put down in a field just off runway 25, with some damage to the airplane but no serious damage to the occupants.

“Greg did a fantastic job, neither of us was hurt”, commented Ward ■

Need a Second Propeller?

Got an expensive wooden propeller on your home built airplane? How about an extra “just in case” second propeller for the price of the wood blank?

Les Palmer in Dallas Texas just built an industrial propeller duplicator and he needs to build a supply of propeller patterns. He will duplicate your propeller for \$125.00. The \$125.00 covers the cost of the wood for the blank and materials. The new propeller will be carved next to

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Chapter Name Tag

Please wear your official Blue EAA nametag to the Fly-Outs and the Monthly Meetings. Your mother and wife may know who you are but the new members don't and my memory isn't so good anymore.

Rick's Tech Tip...

Technical counselor Rick Lambert has assembled builder tech tips from his experience and many published sources. You can reach Rick at 925.676.9377 to schedule your next Technical Inspection.

Forms for Bending Tubing

Todd Mason, P.E. ©Experimenter December 2000

Many homebuilt aircraft require curved shapes bent to a desired radius built out of 4130 tubing. When I started my biplane project, I found there were many articles about how to bend tubing, but I was

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Mr. President!

Harvard Holmes

I can't help but notice

that I am writing this in New Mexico on a weekend journey to see some parks and wilderness areas. Having an airplane has made such a last minute journey possible. This is one of the most enjoyable uses for my airplane, while others enjoy aerobatics, flying young eagles, taking friends for rides, and, of course, building airplanes, tinkering, "improving" and refining them.

It is important that we share the joys, the romance, and the magic of flight with our friends and acquaintances. Sharing our experiences will stimulate others to expand their horizons and initiate their own flying activities. Our shared experiences will also remove some of the fear and anxiety associated with flying by many. All of the activities of Chapter 393 are appropriate for friends and guests, and some are appropriate for the general public. So bring your friends and acquaintances to our meetings and activities!

As I contemplate building my own airplane in the distant future, it seems that much of the effort will be a solitary undertaking. To avoid being too solitary, building with a partner and building at the airport where other builders pass by and stop in is attractive. Other steps are to talk about progress at meetings, or to share your experiences with a more formal talk. How many of you members would be willing to give a more formal talk on some aspect of your building progress? How many more would be willing if there was some assistance in getting the talk ready? Speak up! and remember, you have been warned... your talk is coming.

EAA Raffle News

The EAA has sent me a bunch of tickets for the 2002 raffle for their Piper Cherokee. You can buy tickets until June 1, 2002 (contrary to the March 31, 2002 date on the tickets themselves).

Sport Pilot NPRM

The new sport pilot NPRM is now out. How will this affect your flying? I have not yet read it, but it seems to open up the skies to quite a few more fliers. But then the recreational pilot's license was also supposed to do that, and it turned out to be rather a flop. What do you think?

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I hope this is still your email address.

After graduation from OCS I had two weeks off before Preflight Training.

The Navy started a new program called Intro Flight Screening where students get 25 hours at a local FBO, five of which are solo. I saw the opportunity and was all over it. That has been what I have been doing for a month now. I have almost 18 hours logged 3 of which are solo.

My first solo was 29 Jan 02 and was a very exciting day. I fly out of Destin, Florida on the Gulf of Mexico, which is very beautiful.

I'm so close to getting my private but there is no need since I will be classing up for Preflight in maybe a week or as soon as I'm complete here.

After that I hope to go to Moody AFB in Georgia for Primary. They only take 20 Navy a year but they have new T-6 trainers and the school is brand new so hopefully, I will end up there in the next two months.

Well I just wanted to let you know that I have soloed. If it wasn't for you I probably would not be here having such a wonderful time flying.

I really appreciate all you have done for me. Also, I have a new digital camera so when I get my computer online I'll send you some pictures from here.

Take care and tell Audrey I said hello.

ENS Kevin Albertsen, USNR

(Duane is to be complimented for not just be a young eagles pilot but for being interested in and a friend to the young people that he meets along the way – Ed.)■

down from Denver in their Cessna 182 on their way to Las Vegas to get "hitched." Now there's an elopement vehicle!

Happy Flying and Tailwinds,

Harvard ■

A plane was taking off from Kennedy Airport. After it reached cruising altitude, the pilot made an announcement on the intercom:

"Ladies and gentlemen, this is your captain speaking. Welcome to Flight 293, nonstop from New York to Los Angeles. The weather ahead is good and we should have a smooth and uneventful flight. Now, sit back and relax - OH MY GOD!"

Dead silence followed!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

After several, the pilot came back on the intercom and said, "Ladies and Gentlemen, I am so sorry if I scared you earlier. But, while I was speaking, the flight attendant brought me a cup of hot coffee and it spilled all over my lap. You should see the front of my pants!"

A passenger in Coach shouted back, "That's nothing. You should see the back of mine!" ■

Safety Information...

Let's say you fly out and return to Buchanan Field after 10 p.m. If you experience an incident that would require fire/crash truck or medical emergency services you have a safety problem. The last county safety employee goes home at 10 p.m. and does not report for work again until 6 a.m.

The temporary night watchman may call 911 for you if he notices your problem, but that is not his job. Budget considerations require you to call 911 prior to an emergency between these hours. ■

Second Propeller Continued from Page 2

your original, sanded and finished. He also makes an additional copy of your propeller for his stock of patterns.

Les is an EAA member and can be reached at (972) 241-4387. If you are interested, give Les a telephone call.

There are two fellows in the South County (South San Jose) EAA chapter who have been doing essentially the same thing as Les for several years. The difference is that their lead-time for a duplicate propeller is now over a year and Les promises a fast turnaround.

Thanks to Ken McKenzie and Brad Poling this information■

Further Information at www.eaa393.org

These articles and feature have pictures and additional information available on the club web site. Please investigate.

1. Mike Reinath's Lancair 360 is pictured both on the ground and during it's maiden flight.
2. Pictures of the February Fly-Out
3. Sketches to accompany Rick's Tech Tip.
4. Informal minutes of the Board of Directors Meeting.

You're invited, Bring a Friend...

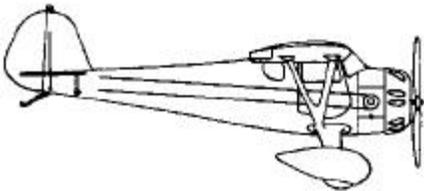
Chapter 393's meetings are open to the public; you don't have to be a member to attend. The meeting time is 7:30 p.m. on the 4th Wednesday of each month. The meeting location is the Buchanan Field Terminal Building on John Glenn Drive, just south of the control tower.

The Monthly Fly-Out

Each month the members of the club go to lunch on a Saturday, as a group, usually to an exotic little lunch spot within 100 miles of Buchanan Field. Every club member is invited to join in the fun.

Here is how it works:

- We will meet outside the Buchanan Field Terminal Building at 10 AM on the Saturday morning immediately following the monthly club meeting.
- The destination for the Fly-Out will be chosen or announced at the General Membership Meeting the prior Wednesday so you will always be able to tell your significant other where you are going.
- Some folks will have airplanes some folks will not. All seats in the airplanes going on the fly-out will be filled. Those who own planes will get to go for that weekly hamburger in their airplane and all others will get to go along by occupying an empty seat.
- If there are not enough empty seats for all that come to participate and there is no room for you then you may expect a preferential seat the following month. ■



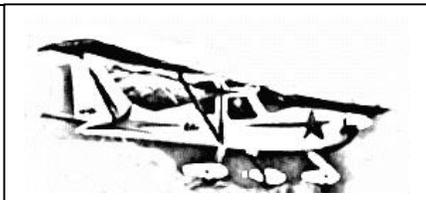
Chapter Events Schedule

February 27, 2002, 7:30 p.m. - General membership meeting

March 2, 2002 - Flyout to Willows Glen County – alternative: March 9, 2002 - Willows Glen County

March 9, 2002, 10:30 a.m. - Board of Directors meeting. This is not a closed or private meeting.

March 27, 2002, 7:30 p.m. - General membership meeting. ■



not able to find any that addressed how to achieve a given radius. The common method used to bend tubing is to cut out a plywood form and bend the tubing around the form. To keep the tubing from flattening, it is commonly filled with sand. The difficulty is deciding what radius to cut the form to offset the spring back of the tubing.

I derived the following formula mathematically and then tested it while building. In order to keep the math to a minimum and because of material variations, I reduced the formula to something fairly simple that would cover a wide range of sizes.

$$R_{\text{form}} = 1/1/R_{\text{desired}} + 0.01/D$$

Where: R_{form} = The radius to cut the form.
 R_{desired} = The inside radius of the part to be formed. (Note that most plans will indicate the radius along the centerline of the tube. Therefore, subtract half the diameter of the tube to find R_{desired} .)
 D = The diameter of the tube or the thickness of the flat plate to be bent.

Note: The formula is only for normalized 4130 steel.

For example, you need to bend a piece of $\frac{3}{4}$ X .035 tubing into a 10 inch centerline radius with an angle bend of 80°

A) Step one is to find the radius to make the form. The inside radius of the formed part is the centerline radius minus half the tubing diameter. Therefore, R_{desired} equals 9.635 inches. D equals the diameter of the tube - .75 inch.

Using the formula, do the math in the following steps:

1. $1/R_{\text{desired}} = 1/9.625 = 0.01039$
2. $1/D = 0.01/0.75 = 0.0133$
3. Add the above ($0.01039 + 0.0133 = 0.1172$)
4. The radius of the form is $R_{\text{form}} = 1/0.1172 = 8.53$ inches.

B) The second step is to find the included angle of the form. This step can be left out if you just want to cut a form and use trial and error for how much to bend the piece.

$$\text{Form angle} = \text{Part angle} \times R_{\text{desired}}/R_{\text{form}} = 80 \times 9.625/8.53 = 90.26^\circ.$$

I recommend building the form out of the same thickness as the diameter of tubing to be bent. Then glue and fasten an additional piece on top to keep the tubing from popping out of the form while being bent. Make sure the form is anchored well to a table prior to bending. There is a lot of energy built up as the piece is being bent. Most importantly, make sure nobody is standing in the direction that something may go flying if it breaks loose.

For tubing with a diameter to thickness (D/t) ratio over 15, I recommend using sand in the tubing. For a D/t less than 15 you shouldn't have many problems bending without sand. You may use wooden plugs or weld caps on the tubing to retain the sand while bending.

I have used the above procedure for all the bent parts of my biplane project, including the strap hinges, with good results. While the resulting bends may not be precisely the desired radius, I have found them to be quite close. These procedures have saved me a lot of time and discarded tubing.

Mark each form with the tubing size and radius for future use. A supply of bending forms in your tool crib can make future projects or repairs a great deal less complicated - Rick ■

Chapter Resources...

are owned by the chapter for the benefit of the members. To check out a resource contact: Rick Lambert, Technical Counselor, 925.676.9377 or 925.934.5007 or rlam242714@aol.com

Lost Tools

Chapter 393 has been around for a long time and during that time we have acquired and loaned out many tools and specialty materials. Some of those have not been returned. If you have a tool or other materials that we purchased with club money return them to Rick Lambert. There is no late charge.

Aircraft Scales

Ruggles Aircraft Scales make it easy to compute a non-certified weight and balance for your project. Scales have a capacity of 3600 lbs. Easy to use.

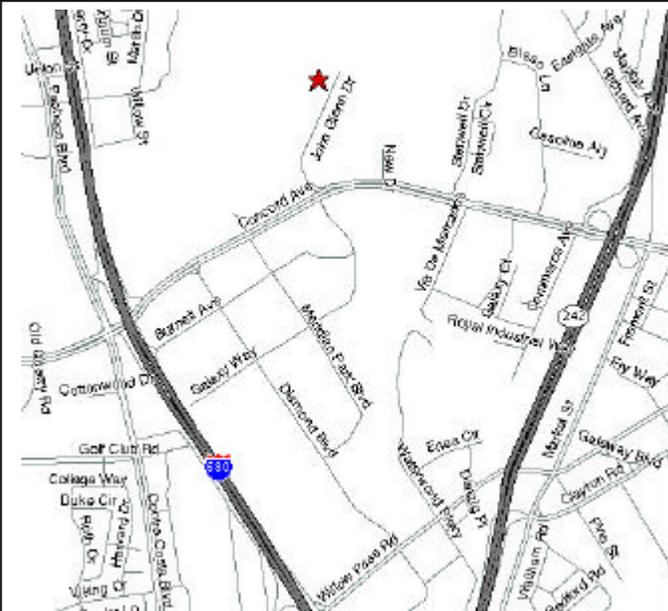
Engine Baffle Templates

CNC machined baffle template for four cylinder Lycoming cylinder head. Computer correct measurements.

OSPREY II for sale

Fuselage with fully-instrumented control console & panel on pedestal, electric gear retraction mechanism in place with nose gear installed, fuel tank with plumbing, batteries, seats, all flight & trim controls; Canopy & Engine cowl with 0-320 mount & exhaust system; Propeller; Spars & Straps, Ribs, Horizontal stabilizer, elevator, Rudder & Water rudder, Fin; Aluminum and 4130 fittings including main gear assemblies. All Ply, Foam, Wire to finish; Cloth to cover, manual, hardware, and Plans, design sketches, construction photos. Quality workmanship. Asking only \$11,500...

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