

## Building Gee Bees and other wastes of time...

About November of last year I saw an internet post on an aviation related news-group I have watched for years. A fellow needed a measurement for the cutout of a panel mount radio of some sort. Another user responded and the original fellow posted a picture of a beautifully made instrument panel about an hour later. I asked if he had hand-cut the thing that fast and he responded, "I cut it out on my homemade CNC router". This and a video I saw on YouTube sealed the deal...I was about to waste a bunch of time building something that may not ever make me a dollar, and keep me away from all of other things on my to-do list. [See video](#) This "thing" was a big table-top mounted router that was going to keep my wife from ever parking in our garage again, but hopefully was going to mean I could make airplane parts as accurate as Cessna (tongue-in-cheek). Even being almost entirely a plywood structured machine it was capable of machining thin aluminum sheet... (like 99% of airplanes are made from or at least contain some parts made from?). This was going to require learning a few new



skills, but thankfully the main requirement was an understanding of Cartesian coordinate systems that are used in drafting and machining. As a CAD draftsman for the last

18 years I had this part under control, so onward and upward!

I will shorten this story considerably and just say that lots of research was done and choices were made...checks were written and education was bought and paid for. Sometimes you learn from mistakes and sometimes you learn from others (learning from others is cheaper). That being said, the wife lost her parking spot, a machine was built and the learning really got going! Several little do-dads were cut out...a few to make the wife feel better about the parking space forever lost, but mostly to learn the software that controls the machine and the whole process in general. Things progressed and not TOO many bits were destroyed. I did determine the parameters that can cause  $\frac{3}{4}$ " plywood to start to smolder, which being a general precursor to fire, was some impor-



tant information to know. I found a few patterns on the internet to cut some neat projects for my son (9 year old boy that likes dinosaurs) that were great learning lessons in setting up machining instructions for fairly complex structures. The "structure" was a dinosaur skeleton model but a complex 3D object is still a complex 3D object, be it a 6' long dino or ribs and skins for an airplane... ironically similar So, the real job did its best to derail this little project a few times and life had its way as well but little bits of time were grabbed here and there to try new things on the machine. Then an aviation-



## Matters of Faith

Have you ever considered how much faith is required to do what we do? As pilots and passengers of general aviation aircraft, we put a lot of faith in the designers and builders of our planes. Some of us have greater faith in factory-built aircraft; while others would never fly in anything they didn't assemble themselves.

With enough faith in the vehicle, we must have faith that the owner/operator (if that is not us) has maintained the airplane in a way that justifies our trust; and the airplane has and will be flown within its design parameters, in compliance with all applicable safety rules and guidelines.

After checking those boxes, we must have faith in the voices on the radio that are watching little blips of light move across a black screen and keeping those blips from sharing the same space at the same time. (Don't forget the Control Tower folks who actually lay eyes on us and send us off or welcome us home.)

Finally, we put our faith in other pilots to be where they say they are, and to behave as they should, so we don't inadvertently meet somewhere other than at the coffee machine.

There's a LONG message on how faith in yourself leads to confidence, and how a confident pilot is a better pilot; but I'm going to skip all that and cut right to my major points:

1—My faith in all of you has been abundantly rewarded. In six months (five if you eliminate that rainy Saturday in March), thanks to having plenty of pilots and volunteers, we have surpassed our Young Eagle numbers for ALL of last year, established a healthy bank balance, awarded our first Air Academy Scholarship (*come to the July meeting to hear Jerad's report*), and written a nice check to show our faith in Marty Flournoy's skills as he

Published by Chapter 677 of the Experimental Aircraft Association (EAA) for the use, education and enjoyment of Chapter members and others to whom it is provided. No claim is made for the accuracy of materials presented. Editorial content is the opinion of the contributor and does not necessarily reflect the position of Chapter 677 nor EAA. Submissions for publication, questions or comments on articles, etc. are encouraged and should be addressed to: Gary Brossett at [brossett@bellsouth.net](mailto:brossett@bellsouth.net) Permission for other EAA Chapters to use the non-copyrighted portions of this publication is hereby given as long as the source is acknowledged. Any copyrighted material that appears in this newsletter is with the permission of the acknowledged copyright holder. Any further copying must obtain the permission of the original copyright holder.

### Chattahoochee Valley EAA Chapter 677

P. O. Box 325  
Columbus, GA 31902-0325

Visit our website at  
<http://677.eaachapter.org>  
and on Facebook

#### President

Ernie Kelly  
706-580-3767  
[Ernie.kelly@gmail.com](mailto:Ernie.kelly@gmail.com)

#### Vice President/Editor

Gary Brossett  
706-615-6964  
[brossett@bellsouth.net](mailto:brossett@bellsouth.net)

#### Secretary/Treasurer

Dianne Preston

#### Chapter Board

Chris Cook  
Marty Flournoy  
Mac Molnar  
Phaedra Childers

#### Property Manager

Marty Flournoy

#### Young Eagles Coordinator

Ken Sines

#### Flying Start /Eagle Flight Coordinator

Steve Culpepper

#### Webmaster

Chris Cook

#### Membership Coordinator

Daniel Jones

#### Past Presidents

Todd Shellnutt  
Glenn Mathews  
Reginald Benford  
Steve Wurst  
Ronda Schuman  
Dennis Lanier  
Vernon Prater  
Leroy Story



## Building GeeBees—cont

related project was dropped in my lap. Our church was getting ready for Vacation Bible School and the theme this year was none other than AVIATION! Kinda the “Golden Age” of aviation (the 30’s) no less. The logo of sorts was a Gee Bee R1 which is way up there on the “cool airplane” charts so things got going. Back to the internet for some research and eventu-

ally a copy of a scale drawing was found. It was from a Model Airplane magazine published in the 80’s that was a plan for



a rubber band powered, but scale, Gee Bee R1 with a 21” wingspan. Since this was essentially going to be a static display/set decoration, 21” wasn’t going to do...but the aforementioned 18 years of CAD experience came to bat. The internet plan was imported into my CAD software and a several day job of scaling and tweaking the 3 view drawing into cut patterns began. What emerged was a scale pattern of the infamous GB with a

10’-8 wingspan. I decided I wanted to make the GB go together like the dinosaur skeletons I had cut earlier where all intersecting pieces were notched to slip together with an interference fit joint...usually no glue required. I can’t overstate the amount of time involved doing the CAD

work for this project...it was a large project for something that would just hang in the ceiling of our church for kids to look at...but once started it kinda “grew”. I got a “little” obsessed with making this thing look “real”.



I know some people suffer from obsessive compulsive disorder, and they now certainly have my sympathy (I kept getting WAAAAY too picky for something that would never fly, but it was hard to just stop and move on). I kept thinking of better ways to do things to make it look more authentic! Parts started to come together and the GB started to take shape. Once the internal structure was complete, I ordered the cheapest heat-shrinkable fabric I could find (Dacron peel-ply from Aircraft Spruce) and used contact cement to attach the fabric almost exactly like you would for a real plane. I used a basic gloss latex house paint for color (to keep cost down...it was never going to fly, I kept telling myself) And eventually something resembling a GB-R1 took shape! It was hung in the ceiling of the church the night before VBS started and a huge sigh of relief went out.

This project showed me several things about the CNC machining process. First off, aircraft parts (wood or aluminum) are completely within the capabilities of this machine. The accuracy to which it can cut

multiple parts is amazing. The wings contained 74 individual parts, many duplicates, and they all came off the machine to the original CAD measurements. The parts literally went together like LEGOs...hardly ever did I have to pick up some sandpaper to make an “adjustment”.

The video I mentioned earlier shows some test pieces a fellow made to “tune” the CAD drawings for a nose rib, spar web, and leading edge skin for a project he is building. He literally is making a “matched-hole” kit that will be self align-



## Building GeeBees—cont

---

ing...if the holes line up, it is straight! This opens up a ton of possible projects that will certainly burn up any “spare” time I will have for years to come. Several flyable airplane projects are rolling around my head so what to do? There are obvious airplane building possibilities with this machine, and as I realized doing the GB...once the CAD work is done it doesn't take hardly any extra time to make 2 sets of parts or 12 sets! Which leads me to think more and more

about a group EAA build project. With the right motivation and perseverance why not build a batch of CH601's or CH701's, Pietenpols or Buttercups or.....? All it takes is “want to” ...

What will the wife's parking spot build next? Who knows...but I bet I'll learn something!

Jeremy Casey



## Ernie's msg—cont

---

competes in the WAAC in Hungary ([www.teamusaero.com](http://www.teamusaero.com)).

2—You showed faith in me, and patience, over the year-plus it took to get an agreement signed to move into Hangar 13. Many, many thanks to the crew that spent Independence Day cleaning out the place. (Call or email me, Gary, Jeremy, or Rocket, for the combination to the door.)

3—Speaking of faith, Ken Sines kept his hopes high and has had his medical reinstated so he can haul more Young Eagles. And Tom Swilling has shown his faith in the future of a Drivers License Medical by getting back in the cockpit and proving he can still do what needs to be done.

Faith is not without reward, and we have been truly blessed in many ways, the most obvious of which is that we have never had a Young Eagles accident, despite challenging conditions (weather, impatient crowds, and overworked pilots). We've had great local press coverage; and we have been nationally recognized by Trevor Janz of EAA for our meetings, our rallies, and our news-

letter. And Flightways still lets us conduct our Young Eagles Rallies in their space (thanks so much, Michelle and Darryl).

It's a matter of faith that keeps me from flying right now (long story I'll share when you give me the chance), and I'm afraid it's because of misplaced faith that we lost Joe Bartley, his wife, and daughter Caroline - he trusted something that led him into that storm. I knew Joe just well enough to know his personal faith in an afterlife was strong, and I know that faith has been rewarded. But we're left behind, shaking our heads that a guy that smart could fall victim to something so avoidable - or so it appears from the little evidence we have.

I won't be able to be with you for the July Chapter Meeting on July 28 or the Young Eagles Rally (Oshkosh South) on July 31 because of our family vacation. But I have GREAT faith in Gary to host a great meeting, and in the pilots and ground crew who are not going to Oshkosh to be there as usual that Saturday morning. Why should you show up? Because a lot of kids and parent have placed their faith in you!

Ernie



## Yes, you can get there from here.

Since 1926, Embry-Riddle Aeronautical University has become the premier university for studying the science, practice and business of aviation, aerospace and engineering. Today, we lead the world in aviation and aerospace higher education with more than 150 locations worldwide and two residential campuses in Daytona Beach, Florida, and Prescott, Arizona. While we continue to expand the definition of our university, Embry-Riddle Aeronautical University Columbus Campus is here to help you explore your potential with Associate, Bachelor and Master degrees in Management, Maintenance and Aviation.

**EMBRY-RIDDLE**  
Aeronautical University  
WORLDWIDE

**Embry-Riddle Aeronautical University  
Columbus Campus**

[worldwide.erau.edu/columbus](http://worldwide.erau.edu/columbus)  
[columbus@erau.edu](mailto:columbus@erau.edu)  
**706.568.5485**



# Young Eagles Gallery– June 30



2 2 3 0



## A Record Year!

They say records are made to be broken. In April we flew 64 Young Eagles, shattering the February 2011 single day record of 46. In May we broke that record with 68.

Our chapter was featured in the June issue of *Valley Parent* magazine as “Summer Fun in the Valley” which contributed to another single day record in June of 70 Young Eagles.



**10 for 2012**

Chris Cook  
George Wade  
Jack Bartholet  
Ernie Kelly  
Mac Molnar  
David Hall  
Ken Sines  
Phil Johnson  
John Walden



Ken, Phil and John join the “10 for 2012” group! The chapter is awarded points for every Young Eagle they fly in 2012 toward next year’s Air Academy Scholarship Program



## Thank you to all the June rally volunteers

John Walden, Ken Sines, Chris Cook, Phil Johnson, Mac Molnar, Phaedra Childers, Ernie and Susan Kelly, Steve Culpepper, Rick Dellinger, Diane Preston, John Hart, Tom Swilling, Glenn Mathews, Thomas Moore and Gary Brossett

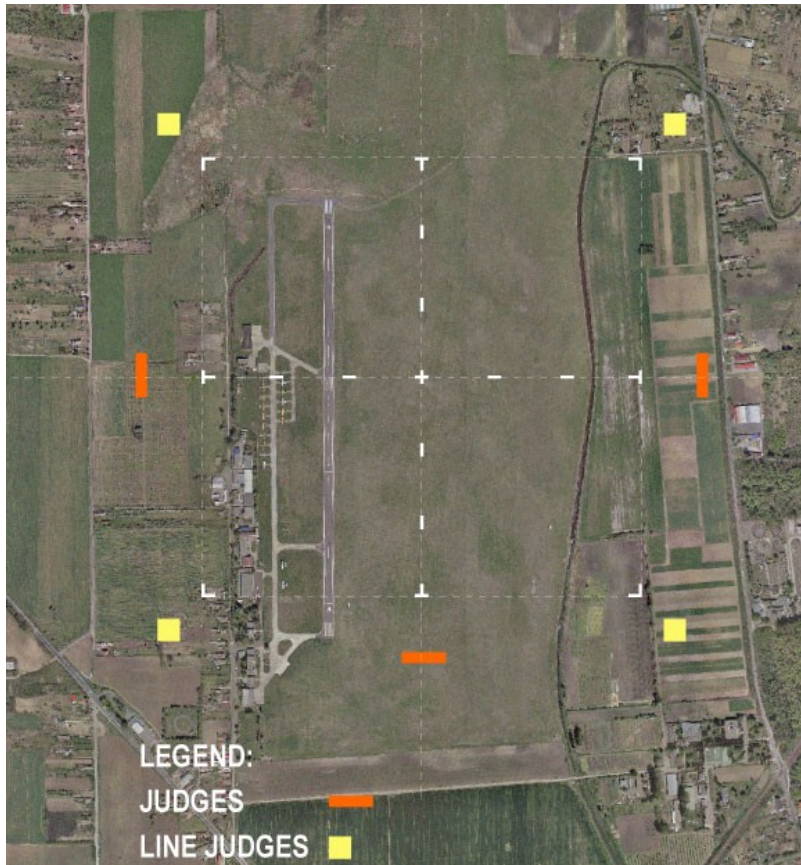
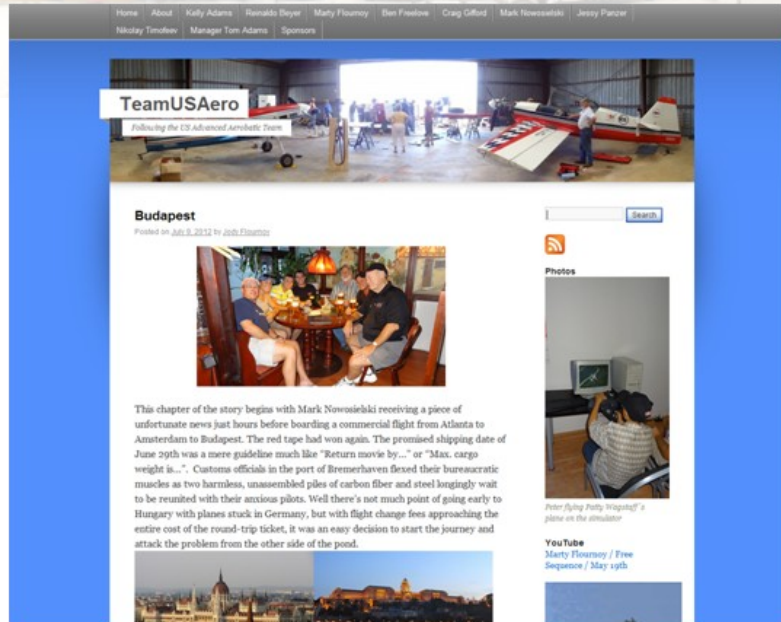
# WAAC 2012 Hungary



Follow the action on the blog at  
<http://www.teamusaero.com/>

Be sure to check out Hungary's  
 promo video  
<http://www.youtube.com/watch?v=TVGCLSQRACe>

Facebook  
[http://www.facebook.com/AWAC2012?](http://www.facebook.com/AWAC2012?sk=app_245578268835779)  
 sk=app\_245578268835779



PROGRAMME	
<b>23th - 25th July (MON - WED)</b>	Training days
<b>25th July (WED)</b>	Arrivals, Registration.
<b>26th July (THU)</b>	08:00 a.m.: Opening Briefing; 10:00 a.m. - 01:00 p.m.: Competition flights; 01:00 p.m. - 02:00 p.m.: Lunch break; 02:00 p.m. - 05:00 p.m.: Competition flights 06:00 p.m.: Opening Ceremony.
<b>27th July - 03rd August (FRI - FRI)</b>	08:00 a.m.: Briefing; 09:00 a.m. - 01:00 p.m.: Competition flights; 01:00 p.m. - 02:00 p.m.: Lunch break; 02:00 p.m. - sunset: Competition flights.
<b>04th August (SAT)</b>	08:00 a.m.: Briefing; 10:00 a.m. - 01:00 p.m.: Air Show; 01:00p.m. - 02:00 p.m.: Lunch break; 02:00 p.m. - 05:00 p.m.: Air Show; 05:30 p.m.: Awarding and Closing Ceremony; 07:00 p.m.: Closing Dinner.
<b>05th August (SUN)</b>	Departure of competitors.



## 57th Fighter Group Restaurant

---



Returning from a meeting in Duluth, I found myself with nothing to do but lunch and the drive back to Columbus. Driving south on I-85 it occurred to me that the Peach-

tree-Dekalb (PDK) airport, home of the famous 57th Fighter Group restaurant, was near. I had heard about the place and even driven past it a few times. Other than the photos of their “Wall of Heroes” on Facebook, I really didn’t know what to expect.

I’m no restaurant critic, but I have decades of experience eating and an opinion on most things, so here goes. The entrance is from Clairmont Road on the west side of the airport. The narrow winding road takes you through Kudzu covered trees to Checkpoint Charley, in between runways 9 and 2L. Right away I knew this place was unique.

Out front a fiberglass replica of a P-51 is displayed along side a jeep and a cannon (yes, a cannon at the front door). Off the north end of the building is a sign for the NCO Club and a sidewalk leading around the building. Being a former non-commissioned officer I decided to enter there. The back lawn and patio area is adjacent to taxiway alpha and is a plane spotters paradise. I took a chair with a great view of the tower and ramp side of the Atlantic hangar.

I sat for a few minutes taking pictures and no one came to take my order, so I went to the outside bar and asked for a menu. Guess they thought I was just there to spot aircraft, seeing me with a camera and notepad.

Looking at the menu I ordered the 57th sandwich and a cold ale, which I thought appropriate for my first visit. The 57th sandwich turned out to be a roast beef sandwich smothered in caramelized onions

and melted cheese. As I enjoyed the meal I did some aircraft spotting.

I actually started jotting down aircraft, but was soon overwhelmed and didn’t have time to get in a bite from my sandwich, after all, PDK is the 2nd busiest airport in Georgia. In a matter of minutes I saw several DA-20s and C-172s from the local flight school, which appeared to be having a booming business. The lineup continued with a G-58, Lear 60, Hawker 800XP, PA46R, Pilatus and a few aircraft that I didn’t ID. Arrivals on 9 and departures on 2 kept my head moving and I’m sure I looked like a spectator at Wimbledon from behind.

The sandwich was delicious (so was the cold ale) and I enjoyed plane spotting during the meal. I’m looking forward to trying other items on their menu in the future.

Before leaving I walked through the restaurant to check out the memorabilia and aviation art. The place is loaded with things to look at and really should be called the 57th restaurant and museum (see photos on the next page). I ended my stay with a trip to the restroom, where I found the walls decorated with a posters of 8th Air Force squadron patches, RAF badges, and President Roosevelt. No elevator music there, just a recording of Churchill’s famous “We shall Fight” speech of the speaker system.



Be sure to check out their website at <http://www.the57threstaurant.com/>



# 57th Fighter Group Restaurant– cont



Through the trees and kudzu



Past Checkpoint Charley



To the main entrance



Yes, that is a cannon



NCO Club entrance



My hostess Hayley



57th Sandwich before



The view from my table



57th Sandwich after



Loaded with memorabilia and artwork

## Upcoming EAA Webinars

8/8/12 8:00PM CDT	<a href="#">Engine Monitors - AMT &amp; Wings Credit</a>	Mike Busch
8/15/12 7:00PM CDT	<a href="#">Stick and Rudder Exercises to Improve Your Flying - Wings Credit</a>	Jim Taylor
9/5/12 8:00PM CDT	<a href="#">All About Spark Plugs - AMT &amp; Wings Credit</a>	Mike Busch
9/12/12 7:00PM CDT	<a href="#">Young Eagles- 20 Years and Growing</a>	Brian O'Lena & Michelle Kunes
9/25/12 7:00PM CDT	<a href="#">Aircraft Insurance – MUMBO JUMBO</a>	Bob Mackey

**EAA Video Player** powered by EAA

Most Recent Most Popular

Search All Videos

**EAA WIN THE CUB SWEEPSTAKES** The most fun you can have with your wheel pants on.

**Channels**

- Home
- News & Features
- AirVenture
  - 2012, 2011, 2010, 2009, 2008, 2007
- Hints for Homebuilders
  - General, Sheet Metal, Tube / Fabric, Wood, Composite, Electrical
- Homebuilding
- Learning to Fly
- General Aviation
- Vintage Aircraft
- Warbirds
- Aerobatics
- Ultralights
- Light Sport Aircraft
- Aviation History
- Webinars

**Webinars Channel**

**Flying to AirVenture**  
EAA Webinar  
June 21, 2012

**Webinar- Flying into AirVenture**  
June 22, 2012 - Join Fred Stadler, EAA AirVenture NOTAM Chairman, as he discusses hints and tips for reducing your pilot workload when flying into AirVenture.  
83 minutes, 10 seconds

Join EAA

**More Webinars Videos** SORT BY: Most Recent Most Popular

If you miss a webinar, you can still view it from the archive at:  
[http://www.eaavideo.org/channel.aspx?ch=ch\\_webinars](http://www.eaavideo.org/channel.aspx?ch=ch_webinars)

## Around the State

### Georgia Pancakes

**EAA 690**  
**Lawrenceville (LZU)**  
1st Sat, 8-10:30

**EAA 709**  
**Rome (RMG)**  
2nd Sat, 8-10:30

**EAA 1082**  
**Moultrie (MGR)**  
2nd Sat, 9:30-10:30

**EAA 1025**  
**Covington (9A1)**  
3rd Sat, 8:30-10:00

**EAA 1350**  
**Lagrange (LGC)**  
3rd Sat, 8-10:30

### The Thomasville Fly-in

45th annual  
Oct 12-14  
Thomasville (KTVI)



**Wings over North Georgia**  
Rome—Russell Regional Airport  
September 28-30

Canadian Snowbirds  
Black Diamond Jets  
F-18 Super Hornet  
Michael Goulian  
John Klatt  
Navy Legacy Flight  
Kent Pietsch (Jelly Belly)  
Red Eagle Air Sports  
Aaron Tippin, Red, White & Loud



**Boshears Skyfest**  
20th Annual  
Oct 20-21  
Augusta—Daniel Field

Gary Ward  
Trenton Flyers  
Team RV  
Greg Connell



**Moody Air Force Base Open House**  
Legacy of Liberty 2012

Thunderbirds to perform

# Advertising

## Phil Johnson

Experienced - General Practice - Trial - Domestic

Philip J. Johnson, Attorney

5607 Whitesville Road, Columbus, Georgia 31904  
Phone (706) 324-6080 • Fax (706) 324-7192  
e-mail: [pjjlaw@knology.net](mailto:pjjlaw@knology.net)  
[www.philjohnsonlawoffice.com](http://www.philjohnsonlawoffice.com)



Tiger Trophy  
"Family Owned"

Team Trophies, Awards  
Medals, Custom Engraving

[tigertrophies@yahoo.com](mailto:tigertrophies@yahoo.com)  
[www.tigertrophies.com](http://www.tigertrophies.com)

1851 Talcott Court  
Auburn, AL  
334-887-4261

*Professional Resumes  
Free Consultations  
Evening/Weekend Appointments*

*Military Conversions  
Lifetime Updates  
Secretarial Service*

## ASAP Resume and Typing Service

**DIANNE S. PRESTON**

3615 Southlea Court  
Columbus, GA 31909  
Email: [sowell1249@yahoo.com](mailto:sowell1249@yahoo.com)

Bus.: 706.323.4600  
Cell: 706.332.0454  
Fax: 706.221.4727



**Tom Swilling**  
REALTOR®



#1 Bradley Park Ct., Columbus, GA 31904  
Cell (706) 332-6038  
Office (706) 653-1400  
Fax (706) 322-6472  
E-Mail [tomswilling@hotmail.com](mailto:tomswilling@hotmail.com)  
Website [www.waddellrealtyco.com](http://www.waddellrealtyco.com)

## Cherokee Flying Club

1/4 Ownership in a 1973 Piper Cherokee 180  
IFR Equipped  
S-Tec 20 Autopilot W/Altitude Hold  
Dual Nav/Coms  
Apollo GPS GX-50  
Airplane Hangared at CSG

\$3000.00 Initial investment - negotiable  
\$300.00 Monthly Dues in partnership covers hangar  
rental, insurance, aircraft loan payment.  
\$10.00 Hour Dry for every tach hour flown

Contact Information:

Larry D. Cosby  
H: 706-569-9554  
C: 706-315-8295

**EMBRY-RIDDLE**  
Aeronautical University  
WORLDWIDE



**Columbus Campus**  
@ Pratt & Whitney

[columbus@erau.edu](mailto:columbus@erau.edu)  
T: 706-568-5485  
F: 706-568-5551

P.O. Box 9903  
Columbus, GA 31908

[worldwide.erau.edu/columbus](http://worldwide.erau.edu/columbus)

## Standard business card ad

2 x 3-1/2"

\$1 per month  
or  
\$10 per year

Contact the editor for more  
information or to place your ad