



EAA CHAPTER 32 NEWS



Jim Bower, Editor

November, 2005

If you are a total gearhead, you will recognize the parts in this photo as belonging to a Continental O-200. Even if you're not a gearhead, you will enjoy the second installment of Rick Galati's Major Overhaul adventure, in this issue.



Join your friends at the ARC for the last EAA 32 meeting of the year. Note that the meeting is held on the **THIRD Sunday of this month (the 20th) because of the Thanksgiving weekend. There will be **NO** bbq, but we would like to end the year with a bang. So how about a chili cookoff? Please bring your best (or worst) chili, and we will all have a sample. Those not bringing chili, please bring an appropriate side dish (**NOTE: potato chips are STILL not a side dish**).**

EAA Chapter 32 Meeting Minutes

October 23, 2005

The meeting was called to order at 2pm.

New Members

There were no new members present, but several guests were welcomed.

Elections

Vince Morris, Election Committee Chairman announced the nominations for Treasurer: Jim Hann, Secretary: Jim Bower, Vice President, Dave Deweese and President, Karsten Kessler. There were no other nominations so Vince asked for any objections to these nominations. Since there were no objections, the new officers were approved. President-Elect Karsten Kessler gave a brief speech saying that he hopes to continue the good work of the current administration and would like to see the chapter grow.

Airport Runway Expansion

Vince Morris also reported the Airport Advisory Board has met has discussed the need to support the airport manager with the extension of the runway. More information will be coming.

New Business

Dues are Due. They remain at \$60 for the year of 2006.

Chuck Kokiak reported that he has sold his Fawn Lake Airport to Chad Cogan for his aircraft salvage business. Two lots are still available for hangers for \$32,500 for two acres. See Chuck for details.

November General Meeting

Due to the 4 th Sunday of November falling on Thanksgiving weekend, the membership voted to hold the November General Meeting on Sunday, November 20 th.

Christmas Party

The Christmas Party is scheduled for Saturday, December 3 rd. The tickets will be \$18. As every year, everyone is asked to bring a small item for a door prize. Like last year, we will also have a silent auction. EAA has already sent a leather jacket for our auction. Anyone wishing to donate an item or an hour of flight time is asked to contact Laura Million.

Annual ARC Clean-up will be on Saturday, November 26 th to clean up and decorate for the Christmas Party.

Meeting was adjourned at 2:35pm.

Goober the Mechanic (a.k.a. mr bill) gave the presentation on engine maintenance.

Minutes taken by Bill Jagust and translated into english by Laura Million.

Calendar of Events

Sunday, November 20th - General Meeting – **1pm Pot-luck, 2pm General Meeting. Presentation:** This meeting is a “show and tell” theme. Hopefully all will bring out something that they are working on, and hopefully the VP II will taxi over to the ARC. Also we should have an airplane in the ARC in need of a Weight and Balance.

Saturday, November 26th Annual ARC Clean up at the ARC – **9am, we will meet to spruce up the ARC and decorate for the Holiday Party.**

December

Saturday, December 3rd – Christmas Party – **doors open 6pm, dinner at 7pm. More details to follow.**

More events and details elsewhere in this issue. Check www.eaa32.org or call the hotline at 314-286-9932 for details.

We regret to inform you that Roger Moore's son Greg passed away on Saturday October 30. Please join us in expressing our sympathy to Roger and his family, and keep them in your prayers.

Letter From the President

As I wrap up my presidency, I want to thank the people that helped me over the last 2 years. First I want to thank, of course, my fellow officers: Bill, my VP, Gale our Chapter Treasurer, and Jim our Chapter Secretary. One of the things that made our administration successful was that we worked together, we talked, we emailed and we COMMUNICATED. Everything that was successful was so because we worked together.

I also want to thank those that stepped up when help was needed. People like the Young Eagles Mafia that organized successful Young Eagle Rallies. Fundraisers like Ron Burnett and Ray Kennedy with the Grocery Coupons and those that donated rides for the Silent Auction last Christmas help support this chapter financially. The ARC Elves that cut the grass every week and clean the kitchen and bathrooms before events rarely get noticed. Thanks to members that have lent their professional expertise like Gary Kasten and his electrical work, the plumbers, the carpenters, the groundskeepers, etc. that have moved this building along. Thanks to those that set up the chairs before meetings and clean up afterwards and get our food cooked and tables set up. Thanks to those that pass our meeting flyers and invite friends to Chapter meetings and events. Thanks to the members that stepped forward and offered their experience in presentations following the meetings. What an incredible talent pool we have. Thanks to the members that work hard behind the scenes that rarely get recognized, like Ted Boerding for Chapter Hotline. Thanks to those that show up for every event to haul stuff out of the

loft, transport tents, chairs and table and help set up the tents, tables and chairs. Thanks to those that welcomed new people and got them involved with the Chapter. It's hard for new people to feel welcome in a Chapter our size, but thanks to everyone that helped the new members by answering questions, helping or demonstrating projects, loaning tools, etc. That's what we do at EAA. Where would we be without all of our members that pitch in and help? I know I have forgotten some people that have helped and I apologize. I didn't want to mention specific names because I know I would leave someone out. CRS disease and all that. Thank you to all the members that have helped this Chapter grow and prosper.

The Chapter will continue to grow and prosper with your help. Three of our new officers have been with the chapter for only a little over a year and their new ideas will flourish with your continued help. It's great to see that a lot of our new members have gotten involved. The potential is there. The Yahoo Group message board has been busy with ideas and suggestion of future projects and plans. Don't be afraid to start something. Step forward and let Karsten and Dave know what you have in mind.

Thanks and good luck with the future of the chapter.

Laura Million, President

EAA Chapter 32

Vice President's Corner

Ladies and gentlemen, GIRRLS and boys! THANK YOU!

I heard at an early age that there were three types of people:

Those who WATCH what happened. Those who WONDER what happen. And those who MAKE things happen. Later it was described as:

SHERKERS, JERKERS, or WORKERS.

It has been a blast these last two years as your VP man. I want to thank all my old and new friends who answered the call to come and present to OUR EAA Chapter.

Thank you Dave Munson for the powder coating demonstration and then coating my VP (Volksplane II) brake handle and control stick.

Thank you St. Charles Model Club for the models on display.

Thank you Troy Townsend for guarding the Smartt Field airspace with your Powered Parachute during the early mornings and late evenings.

Thank you Ken Blackburn for giving me the Willis Wing Hang glider to remind me of the coolest flying I have ever done.

Thank you to the sheet metal boys with their Sonex and Thorp T-18 machines.

Also the RV gang for bringing out the RV 3, 4, 6A, 7A, 9A. Mr. Scott Nichols brought his RV-10 parts. Treasurer Derosiers' Mustang II, (with a Chevy engine) was great to see!

Thank you COZY GIRRLS for making it look so easy with your working with composites. Their craftwomenship is amazing.

Thank you EAA Oshkosh for allowing us to show off OUR great facility by holding the Light Sport Aircraft (LSA) Seminar at OUR A.R.C. (Aviation Resource Center).

Many thank yous go out to Buzzie, Karsten, Gerry, and the others for opening the doors on Saturday and rolling on the riding mowers and push mowers to keep the green grass looking great. The outside of the building is the first thing people see.

Thank you to Jerry Erickson and Bob Rockford for explaining the Airframe and Powerplant Certification process. An old dog and new tricks at 78 years young age is an inspiration to all!! Cool!

Thanks for letting me share my experiences during the Flight Review talk.

Thanks for allowing me to then follow up with the maintenance review program.

With over 25 years of flight instructing it amazes me how many little things are "forgotten" over time.

Taking a position like this usually has you learning a lot more than you teach. These past two years has done just that. Then when EAA-Oshkosh bestowed upon me the EAA Major Achievement Award for 2005, I was speechless. How time flies. I drove from St. Paul, MN in January of 1989 to learn to fly people in airplanes instead of canceled checks. I found this great EAA chapter. Now with over 250 articles, over 120 Young Eagles flown, several hangar chats, hundreds of kids lifted in and out of a small EXPERIMENTAL airplane at several B-17 fly-ins, ten years as a EAA Flight Advisor, I look back and say wow! Thank you all for the great times and memories!

Now it is off to my studio (that's a garage to the rest of you) so I can now put some of the projects together and throw them into the air. I look forward to "showing and telling" what I will be "learning as we go" into future adventures.

mr. bill, VP (now Volksplane II) man

Dues are Due (almost!)

The chapter voted at the September meeting to hold the yearly dues at \$60 for 2006. Don't wait until the Holiday Party to pay your dues. Pay now before the holiday season hits your wallet. Bring your \$60s to the October meeting and beat the rush.

The Major Overhaul Part II

by Rick Galati

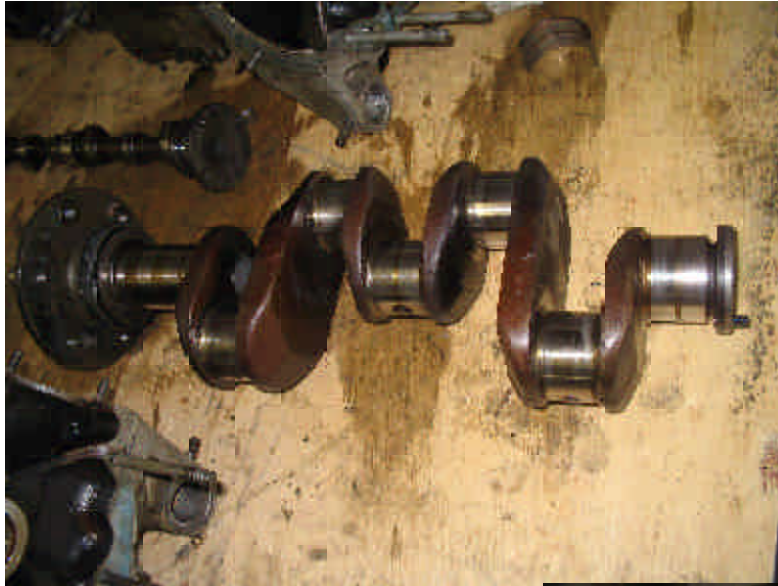
Last month I discussed factors that led to my decision to undertake the major overhaul of the O-200A Continental engine powering my 1966 C-150. Although the engine continued to run acceptably and pass annual inspection, it was approaching 200 hours over the suggested 1800 hour TBO. That fact alone would discourage many potential buyers from considering this particular aircraft. My decision to undertake the engine MOH as a cost effective alternative to selling the C-150 "as is" remains to be seen. I view the experience as a rare educational opportunity. With veteran IA Tom Lansden's encouragement as mentor and guide, we removed most of the accessories and components bolted to the engine and without aid of an engine hoist simply hand carried the remaining engine to a work table for further disassembly. The rear accessory case/cover was unbolted and removed. The final process of "splitting the case half's" to expose the inner components of the engine was the last major step in the disassembly process. This was done by first removing the many bolts holding the case together, then gingerly tapping around the perimeter with a dead blow mallet in an effort to separate the long-joined components. The engine case is an aluminum casting so I learned great care must be exercised when doing this. The last thing you want to do is crack that very expensive case! To my surprise, I discovered there is no gasket between the case half's. It is precision machined surface and a length of string, yes string that is captured between the case half's that aids in insuring a good tight seal. More than one engine case has been ruined by doing what seems natural and driving a screwdriver or other wedge shaped metal object into the seam in an attempt to pry the case apart. With uncounted strategic whacks of a dead blow mallet around the perimeter of the engine, the case grudgingly gave way and the half's finally parted. At last, the heart of the engine was exposed to the light of day for the first time in 25 years when according to the engine logbook, this engine was last overhauled and its camshaft replaced in 1980. cursory inspection of the internal components showed everything to be in reasonably good shape, though the bearings showed marked signs of wear. The next phase of the overhaul process was to bundle and send the

internal components out for a much more detailed and thorough examination. The crankshaft, camshaft, gears and various steel components were sent to "Aircraft Engine and Accessory Co.," a certified FAA repair station in Dallas, Texas for magnaflux, die penetrant inspection and if need be, rework. Previously, the



company forwarded me a custom heavy duty box designed to protect the heavy and cumbersome crankshaft during shipment. The engine case was sent to Crankcase Services Inc., a specialized shop in Oklahoma and came highly recommended by the folks at Aero in Granite City. Aero routinely uses CSI's services as required. I placed the engine case inside a plastic recycling tub and drove it to a local UPS store for packaging and shipment. While the major engine components were out for inspection, I used the down time to clean most the remaining parts which included minor sheet metal repair of the baffling. I sandblasted many of the parts including the carb heat box, oil sump, heat mufflers, and dozens of external engine parts. I then primed and repainted most in official "Continental Gold" engine enamel. I even took the time to disassemble the starter motor, removed the armature, had its contact surface remachined then replaced the brushes and seals with new parts. Even its worn data plate was restamped to make it more legible. I then focused on cylinder work. I took the cylinder assemblies to G. Warren Morrow of C.A.S. Aviation located at the Bowling Green airport for his visual assessment and was confronted with a cold hard choice. He could

rework the cylinders to serviceable standards easily enough but the cost, depending upon the amount of work and replacement parts required could potentially approach \$588 per cylinder. Even after refurbishment, the cylinders would still be considered "used." In addition, though Warren is an IA, his shop is not an



documentation. The fee for that firm's machining/inspection/cleaning services totaled \$1429.72 including shipping. Most of the parts were in airworthy condition minus the piston wrist pins and hydraulic lifter assemblies. Those parts were summarily rejected for being out of tolerance or other issues. The crankshaft was acceptable and machined to a standard first undersize specification. This type of rework comes at a price and the crankshaft now requires undersize (and considerably more expensive) main and connecting rod bearings to be installed when the engine is reassembled. The camshaft passed critical inspection, was cleaned and made to look factory fresh. Its cam lobes were specially treated with an exotic phosphate process designed to retard corrosion. Next on my list, a call to CSI indicated the engine case required some minor repair, but no major surprises were uncovered, the work completed and the case is being returned complete with the coveted yellow tag documentation. The cost for CSI's services was \$574.63 with shipping. Aircraft parts

FAA approved certified repair station so no yellow tag documentation could accompany his work. Given that Aero in Granite City, IL. stocks factory new cylinders that cost \$717 each, I made the considered judgment to install brand new ECI Titan cylinder assemblies. Along with a MOH gasket kit which contains every gasket and seal needed to overhaul an engine, I purchased 3 new cylinders assemblies for a total of \$2299.30 including shipping. The price also included an unexpected promotional item....2 new Autolite spark plugs with each cylinder purchase. The fourth Titan cylinder assembly was in fact purchased just months ago to replace a worn cylinder discovered at last annual and with less than 22 hours on it will be reinstalled only slightly used. A major engine overhaul featuring 4 new cylinders is certain to enhance buyer appeal. In addition, the new Titan cylinders incorporate a new Rotocoil technology that is said to enhance exhaust valve life. Potential buyers of used aircraft should be aware that technically an engine MOH does not necessarily include new cylinders, merely airworthy ones.

At the time of this writing, the components sent to Aircraft Engine and Accessory Co. has been returned complete with yellow tag



and services are no different than any other major purchase. It pays to shop around. A Google search and Trade-A-Plane made comparison shopping much easier. While waiting for the engine case to arrive, I ordered the undersized bearing set, four new piston wrist pins totaling \$170, and eight hydraulic lifter assemblies for \$200. Had I not done the research, many parts and services could have easily cost hundreds of dollars more. For instance, one vendor I priced wanted \$534.02 for the undersize bearing set. I contacted Fresno Airparts and paid \$295 for the items. I noted a new magneto gear p/n 36066 can range in price from \$385 to \$578. Researching a new starter pivot pinion p/n 23487, I quickly discovered its price could be all over the map from \$97.50 to \$257.00. Still, even doing the research, costs add up quickly. The total tab for the major overhaul is now \$4968.65. With the additional purchase of new firewall forward components including new rubber Lord mounts, all new hoses and various

hardware items, I'm anticipating a final flyaway cost to come in around \$5500. If so, it will have been worth it. This would not be possible if I had to have the work done by a shop and IA Tom Lansden's signoff is a crucial component, key to my decision to undertake the engine MOH in the first place. As mentioned last month, a rebuilt O-200 can cost \$8500 with exchange, and that includes using existing, though reworked cylinder assemblies and even that cost does not include shop labor for hours and hours of engine removal and reinstallation. As soon as the bearings arrive, I will start the reassembly process on a vertical engine stand purchased from Aircraft Spruce and factored into the overhaul cost. The newly refurbished crankshaft has been securely bolted to the stand and awaits the reassembly process. Next month, I will describe the final phase, hopefully including the flight test of my newly majored O-200A Continental engine.



This fascinating article will be concluded in the very next issue. Unfortunately, you will all have to wait until January, because there is no December issue - ed.

Help Needed

Hotline Keeper

Ted Boerding is looking to someone that will maintain the Chapter Hotline. Job entails updating the outgoing message periodically and checking any incoming messages and forwarding those on to the appropriate people. Contact Ted Boerding for more information

Young Eagles Database

Laura Million is looking for someone with basic computer skill that would like to continue maintaining the Young Eagles Spreadsheet for the Chapter. After every Young Eagle Event, the chapter keeps a list of names and addresses of all the kids we flew in an Excel Spreadsheet then mails the Young Eagle Registration to Oshkosh. Anyone interested please contact Laura Million at 618-288-7099.

Learning As We Go

mr.bill

It was like every other time going to work in this great life. I was standing off to the side of the airlines gate agent's podium waiting to hear my name called so I could get a NRSA (Non Revenue Space Available) seat on the MD (Mad Dog) - 80 heading to Chicago O'Hare. My last name was butchered as usual but a boarding pass was in hand for an aisle seat on the right side. Thank you! Thank you! Nothing is more feared than a middle seat between two 170 pound (yeah right) people. Alright! This couple looked nice and thin and quiet. After the captain came on the public address system telling us we are cruising at 27,000 feet I heard her ask me if I was going to work. I said "yes" and was told that they had just been at a Boeing B-25 Squadron Reunion in St. Louis. Wow, were you at Smartt Field in St. Charles at the Commemorative Air Force Building? "No, we were at a downtown hotel." She then leaned over and said, "Tell him about the reunion Dad." "Well, only three guys showed up. A 75 year old, an 85 year old, and a 90 year old." (My first thought was my flying buddy Greg V. should be sitting here. He is a 51 year old who flies the SHOW ME B-25 out at Smartt Field.) Well, with my limited brain I tried to interview Howard, and Grace was going to help me. "Man we were only kids. We did not really know what we were doing. We just followed the older (21 year olds) guys who did. We got minimal training and off we went on the mission. We flew in formations of 6: 1 lead plane with the bombardier, then two planes side by side behind the one, then behind them 3 planes side by side. The lead plane had the one bombardier and the middle plane of the three had the photographer. The photographer plane would pull back slightly so he could take pictures of the formation. That gave the commander something to gripe about upon our return. Yeah when they gave us the airplane we had to sign for it. We were told that it cost \$ 992,000 dollars and we WOULD have to pay for it if we damaged it." Grace primed another story. Howard continued, "Yeah those old guys. They flew in the front of the formation. We were doing this bomb run in the fog one time and we dove down over the target and heard a lot of commotion on the radio and we dropped our bombs and pulled up and headed back to base. Upon landing the boys came up and said were you out playing in the farm fields? There were corn tassels in the bomb doors." Howard gave me his little smile which meant he knew how close he had come to

"buying that farm." I asked Howard if he still flies? "Naw, that was enough for me. Though, at one of the reunions Grace did take a flight in the B-25." I got personal and asked about his hearing. "Never much bothered me Bill." How about the eyes? "Well, I can still see and heck I am the designated driver for everyone down at our place in Arizona. I gotta drive people everywhere!" The flight attendant started to read the connecting gates and Albany, NY was G-11. Grace told me I WOULD take them to the gate. Yes I would. It would be my honor. I would be walking with great people of history. Ones who rose to help make this country what it is today. Great! We walked off the airplane unassisted and walked down the K concourse. I watched this tall quiet man with his lovely eighty years young wife stroll down the concourse. She mentioned she needed a restroom stop and his eyes scanned the signs and said there is one up on the left. His eyes were working great. I could only think of Chuck Yeager and Bud Anderson flying the P-51's at OSHKOSH at 80 years of age.. Howard then mentioned, "Yeah General Mitchell came to talk to us one day. He was a short guy. Really rough but that was just his bark." Grace strolled out and I asked her about her life. "Big Blue. IBM was where she worked and her retirement was going great." Well, at this time I was just clueless on what to say. I was walking with two great Americans and now we were at the gate for the Albany, NY flight. I asked if I could write about them. "Only if you send us a copy Billy." Yes Grace I will. Thank you two for being such a great couple. Thanks for making my day. Thanks for making this a great country. I gave Grace a hug and shook Howard's hand. Wow! What a day! My mind quickly turned to the great men and women of our EAA 32 chapter. Least we forget them. I would like to have a day where we all could hear some of the stories of the people of our very membership here at EAA 32. I know Al Donaldson (Air Force), the late Bill Blake (Merchant Marine) and others have done much to service this country. Hopefully this month, which has a holiday for our veterans, we can use our meeting to remember those who have gone before us and served to make us what we are today. Thank you Howard. Thank you Grace. I salute you all!

What WWII airplane was called the Mitchell?

2006 Midwest Aviation Conference and Trade Show

Submitted by Karsten Kessler

The 2006 Midwest Aviation Conference will be held January 7-8, 2006 at the Busch Student Center at St. Louis University.

The trade show encompasses a lot, if not all businesses involved in aviation in our area.

The conference sports 16 presentations and seminars with subjects ranging from "Test Flights", the lately much talked about "Threats to GA Airports" to CFI subjects and accidents.

The organizers of the conference and trade show extended our chapter the offer of having a free booth at the event. Looking at the wide range of participants, I think it would be of great benefit for us to participate in this event.

We will receive more details about the physical layout of the conference in the coming weeks and I trust we will be able to design an attractive booth introducing interested individuals to the activities of the EAA in general and the benefits of membership in our chapter in particular.

This is a two day event in an enclosed building and I hope that many volunteers will sign up for activity at our booth when we see each other at our next monthly meeting.

Karsten

Treasurer's Report

Chapter 32 members,

We are closing the year (and my 13 year tenure as Treasurer) on a very upbeat part of Ch 32. We have gone through this whole construction since about 1996 with out a loan. It's been all paid for by our own members and their efforts in fund raising. It is true we haven't been doing our part for the last couple of years. But, the need has not been as strong either. We are closing the books this year with over \$6,000 in the checking account, and \$5,973.15 in our savings account. The big nuts and bolts things have been purchased and we just need to buy tools etc. for the ARC. This would also include landscaping, grill and things like that.

This years Christmas party to be held at the ARC on December 3rd will have a guest speaker from our area. Dr. Frederick Roos is a Boeing engineer and has spoken to many groups including the 99er's regarding the

Aviation History of St. Louis. His services are gratis to us therefore the tickets for the big event will be cut to \$12.00 per person from our regular \$18.00. Hopefully this big cut in cost will reflect on the door prize gifts.

Info for the new people: It is customary for *each person* attending to bring a little gift for a male or female. If everyone does this, no one will go home empty handed. Tickets are issued when you arrive, and later numbers are called and you pick out a gift. NOW the IMPORTANT part. We need to get a head count of whose coming. This can only be done when I receive your check in person, or in the mail, for your reservation. Please don't procrastinate and GIT 'ER DONE. Sit right down and send your check today for this great camaraderie and a night out for you and your significant other. All checks should be made out to EAA Ch 32 and sent to Gale Derosier at 30 Shimmering Lake Ct. St. Charles, MO. 63301

INFORMATION HOTLINE
314-286-9932
 CALL THIS NUMBER FOR INFORMATION ABOUT
 UPCOMING EVENTS

Check out our Fantastic Web Pages at
WWW.EAA32.ORG
 Laura Million, Web Designer
 While you're there, take time to join the
 Yahoo Groups to help you stay abreast of
 Chapter happenings!

TO:

EAA CHAPTER 32 NEWS
 Jim Bower, Editor
 10350 Toelle Ln.
 Bellefontaine Neighbors, MO 63137



Officers and Committees

<u>President</u> Laura Million	618-288-7099	lmillio@siue.edu
<u>Vice President</u> Bill Jagust	636-926-0171	BSARJ@cs.com
<u>Secretary</u> Jim Bower	314-869-8971	jimbower@hotmail.com
<u>Treasurer</u> Gale Derosier	636-724-4735	kgderosier@sbcglobal.net
<u>Flight Advisors</u> Al Donaldson	636-745-8311	
Bill Jagust	636-926-0171	BSARJ@cs.com
<u>Tech Counselors</u> Bob Jude	636-946-2282	bobjude@charter.net
Gale Derosier	636-724-4735	kgderosier@sbcglobal.net
<u>Communications</u> Newsletter: Jim Bower	314-869-8971	jimbower@hotmail.com
Webpage: Laura Million	618-288-7099	lmillio@siue.edu
EAA Hotline: Ted Boerding	636-949-0993	tboerding@cranems.com