

# CHAPTER 55 EXPERIMENTAL AIRCRAFT ASSOCIATION

## AUGUST 2004



Meetings are the 2nd Saturday of each Month

Chapter 55 Hangar - Mason Jewett Field

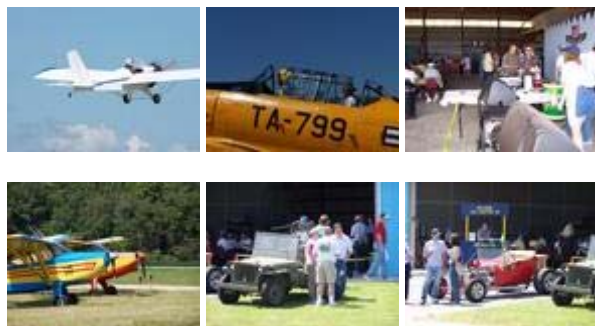
Pres: Mike Arntz 694-4601 Vice Pres: Tom Botsford 663-1318 Treas: Gregg Cornell 351-1338

Sec: Drew Seguin 332-2601 Editor: Warren Miller 393-9385

### Climb and Maintain Flight Level 55

The Steak Fry on August 15<sup>th</sup> went very well. Gregg Cornell will have the results for you at the membership meeting. I would like to thank these people that made this a successful event and hopefully I have not missed anyone:

Al St. George, Dick Wilke, Ken and Vickie Vandenbelt, Rick Farrell, Richard Bacon, Bob Noelp (Good to see you back again), Bill Purosky, Renee Arntz, Marilyn and Bill Bedzek, Dave and Debbie Groh, Joe Pirch, Ralph Taggart, Deanna McCreary and Don McAlaister, Rocky Stone, Gary Long, Jack Toman, Jim Cushington, Gilbert McKessey, Ernie Lutz, Gregg Cornell, Terry Lutz, Ken Drewyor, Connie Kowalk, Leo Holmes (he got a new member by talking to one of the guests), Leah Volker, Joe Whitesides, Ray Fink, and Dave Cook



Without the enthusiasm and devotion of these members, our Chapter would not function. We all need to follow the fine example set by the afore mentioned members. So, if you have been absent from our events "Come on over, roll up your sleeves and join the fun!"

We served 179 steaks and the last one served was at 4:50 PM. Jack Toman counted at one time we had over 30 planes on the ground. The Stinson group brought 18 of its members for a steak lunch. Channel 6 was there at the end and did another interview on us but it did not make that night's news but we were on in the Monday morning news.



A couple of days after the event I was at work watching a C-130 doing approaches and landings. I called the tower and asked the controller to find out who might be flying that aircraft. The person flying (and doing a fine job I might add) was none other than Chapter 55's heroine "Leah Volker". The way she handled the big plane was very impressive. I also found out that a son of a coworker is in the same unit as Leah and is training to fly the same aircraft, his name is Todd.

Just a note and advanced warning the Christmas party will be held at the VeVay Township Hall again this year. **Deadline for monies will be November 27, 2004.** No reservations will be accepted after that date as we have to make our commitment to the caterer.

Remember to take a chapter member when you go flying.

**Mike Arntz, President**

**SEPTEMBER SCHEDULE**  
**Board of Directors' Meeting**  
Wednesday, September 8, 2004  
**Chapter 55 Meeting**  
Saturday, September 11, 2004  
8 - 9 Breakfast / 9:30 Chapter Meeting

## BREAKFAST W/CHAPTER 55



same as last year. → Tom Botsford talked about the Kalamazoo trip after the Sept meeting. → A proposed trip to Washington D. C. was discussed by Bill Bezdek. We need to plan a date to go. Good airfares are still available. → Breakfast group was Dennis Swan, Adam Fogg, and Kyle Bradford. → Joe Whitesides donated a lock for the water faucet. → Ralph Taggart talked about the new Sport Pilot license. → There was discussion about a penalty for forgetting name tags of 25 cents. Joe said he would pay his amount for the duration of the year. → Tom Botsford wants to get color tour going with chapter members. → Meeting was adjourned at 10:20 am.

### September Team

Lloyd Brown  
Gary Davenport  
Jim Henrickson  
Steve Kent  
Edward Manturuk  
Bob Noelp  
Dick Bacon  
Barb Bacon  
Ralph Taggart

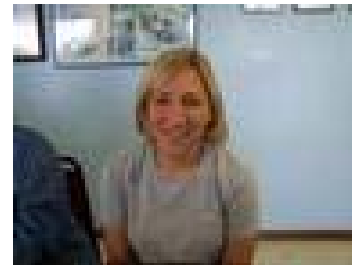
### October Team

Charles Brown  
Bill DeGrow  
Mary Gowans  
J.Morris Hickman  
John Kingsbury  
Tim Martinson  
Robert Ognian  
Phil Tartalone  
Jim Andrews

## Notes from Cape Juby

### By Terry L. Lutz, Chapter 55 Flight Advisor

Without a doubt the most exciting thing about the August meeting was a visit by Leah Voelker.



## EAA Board of Directors Meeting

**August 11, 2004**

Meeting was called to order at 7:01 PM on August 11<sup>th</sup>. → Mike Arntz, Tom Botsford, Gregg Cornell, Bill Purosky, Renee Arntz, Doug Koons, Rick Farrell, Dave and Debbie Groh, Ken and Vickie Vandenberg, and Connie Kowalk were at the meeting. → Tom and Joe were to be in attendance but did not make the meeting. → Mike Arntz has the food permit for the Steak fry. We took a tally on cookers and grills. There were enough by those at the meeting providing the items. The meal will be \$9.00 with out of pocket cost of around 4-\$5.00, → There was some discussion on how we are going to do the cabinets in the hangar. → We discussed the insurance policy for the chapter and making sure everything will be covered. Motion for insurance by Bill Purosky and second by Doug Koons. All were in favor. → Painting of the builder's hangar. Gregg is going to use washer to get it ready for painting. → Christmas Party was discussed and the last date for the having your money in will be Dec 1, 2004. The price of the meal will be \$12.00 per person. → The meeting was adjourned at 8:00 PM.

## EAA Chapter 55 Business Meeting

**August 14, 2004**

The meeting was called to order at 9:30 a.m. → New faces and guests. Leah Volker, one of our members came home from flying the C-130 to visit the chapter. → Guests Audrey Corr and mother Cindy were visitors and Audrey was flown as a Young Eagle by Ernie Lutz. → New member John Kingsberry was introduced → Treasury report was accepted from a motion by Russ Hilding and 2nd by Carl Dalrymple. → Young Eagle report was given by Renee Arntz. He wants volunteers for another Young Eagle Rally. → We discussed need for paint party and clean up of hangar. → Balloon Festival sign up sheet and sheet for members to volunteer Steak Fry. → Discussion about Christmas party. \$12.00 per person. Money needs be in by December 1st, 2004. It will be held at the Vevay Township hall,

I had not seen her since she returned from Air Force pilot training and was waiting to go to C-130 flight crew training in Little Rock. Those of us who have been in the chapter for a few years will remember when Leah was a regular at our meetings, and working on her private license at Aero Genesis when they were still in Mason. When Aero Genesis closed their flying school, Leah provided both the inspiration and the perspiration to form what is now the highly successful Spartan Wings flying club. Shortly after that, with the ink barely dry on her Private License, Leah decided to join the Air Force Reserve and become a C-130 pilot.

In the year and a half since she was checked out in the C-130, she has been everywhere in the Middle East, from Afghanistan to Iraq and throughout the horn of Africa. There were many stops in between, and it's been quite an experience for this very bright young woman. Flying in combat zones, living in a tent on an airfield in one of the former Soviet republics, and seeing first hand how we are changing people's lives for the better are just a few of Leah's experiences. She told me that she has enough time now in the C-130 that they will be sending her back to Little Rock for upgrade to aircraft commander. Leah's story is what dreams are made of, and she is literally writing history with her life's experiences.

Leah told me that one of the problems she has is finding body armor that fits well enough that it provides the protection she needs and still allows full mobility while she's flying. The standard issue equipment is too long from waist to neck, and it sits too far up around her neck while she's in the pilot's seat. It turns out that Oregon Aero provides a lot of body armor, ballistic resistant helmets and other military gear for the U.S. military. They will also custom make this equipment for soldiers and airmen who order it. Maybe the chapter can find

out what it would take to get some body armor for Leah that fits properly, and provide the seed money to make it happen. Pilot, soldier, U.S. ambassador, chapter member, and all-around American woman, we are very proud of you, Leah!

I get the chance to read a lot of interesting things, much of it in the flight test world. Something came to my attention recently that you might be interested in. The British Microlight Aircraft Association recently conducted some tests to investigate the characteristic of flexwing aircraft that causes them to tumble rather violently. By flexwing aircraft, I am referring to vehicles that have similar seating, engine placement, and landing gear arrangement as powered parachutes. The wing is similar to a hang glider wing, and control is achieved by weight shifting through a base bar that the pilot moves forward and aft, or left and right. A machine similar to the ones I've described was parked in the back of our hangar a few months back.

The article I recently read shows a sequence of photographs from an air show in France where the pilot attempts a loop with one of these aircraft. Sounds crazy, doesn't it? But in the hang glider world, there are actually aerobatic competitions, and if you remember Bertrand Piccard (the first guy to fly around the world in a balloon), you will recall that he was once the world hang glider aerobatic champion. Those hang gliders are controlled by weight shifting, so they are similar in some respects to the powered version with the same wing planform.

In the sequence of photographs, the loop continues until the flexwing aircraft is inverted and the pitch attitude is about 45 degrees nose down. At that point, the wing begins to pitch in the other direction at an extreme rate, in a sense going from a positive g loop, to an extreme negative g loop. The pitch rate was measured at 400 deg/sec, which is why the BMAA calls it the "tumble mode". On one version of these aircraft alone, there were 7 fatal accidents in an estimated 200,000 flying hours where the tumble mode was involved.

To find out what was happening, the BMAA conducted their tests. Every homebuilder and EAA enthusiast will find these tests very interesting. They were not flight tests because of the extreme danger of a fatal accident. Instead, they used a test rig borrowed from the British Hang-gliding and Paragliding Association (BHPA). The test rig consisted of a full size Chevy pickup truck with a V-6 engine equipped with a nitrous injection system. The wing of the flexwing was mounted on a "sting", or a gantry above the truck, and was fully instrumented to measure lift, drag, and pitching moment. The test crew was typically 3 people (driver, instrumentation operator, and test engineer). Traditional flight test safety considerations were taken, because the vehicle did carry humans, and was known on occasion known to become airborne during testing.

What they learned was that while the flexwing had near normal lift and drag characteristics, pitching moment was extremely nose down at the stall. Inflight, this causes the flexwing to pitch rapidly nose down, rotating about the wing hang point until the front strut is locked against the base bar that the pilot uses for control. The aircraft is then rotating nose-downwards about the cg, rather than the wing alone rotating about the hang point. The phenomenon that creates this rotation is a span-wise vortex that forms above the leading edge as the nose pitches down, and

travels aft to create a low pressure region trailing the trailing edge of the wing, which apparently sustains the rotation.

Four main entry conditions were identified for the tumble mode:

1) Whip stall, or stall from an extreme pitch attitude. The more highly loaded the flexwing, the less it will tend to tumble; 2) Extreme nose high or nose low attitudes due to spiral instability, usually in conditions of poor visibility; 3) Failed loop maneuver; 4) Flight through own wake vortex. This last condition should get the attention of anyone flying a flexwing, or hang glider type aircraft. At 45 knots and 60 degrees of bank, the turn rate will be 40 deg/sec. So it will take 9 seconds to complete a 360 turn, and the wake vortex generated will still be going strong. This can cause a large and uncommanded roll upset, with the possibility of a stall in the recovery.

For those of us who enjoy speedier airplanes, meeting your own wake after a clearing turn is usually a sign that you have managed to do a perfectly level turn. But it is different at slower speeds. Earlier this year, the Luscombe Silvaire Bullet and I were out exploring slow speed flight and doing as steep a turn as I could from slow flight at about 40 knots. I went around and around, trying to nail both the speed and the altitude. After about two times around, I noticed I was losing roll control. The Bullet was rolling into the turn on its own, trapped in the trailing vortex of the wing. I was able to use the rudder to roll away from the vortex and regain roll control, but it was an unusual feeling to be trapped in the wake for a few seconds.

Well, that's all for now. Enjoy the Fall weather. It is typically just great for flying, although the days are shorter and the window between weather systems is a little smaller. And as always, don't forget to lend your fellow pilot a hand when they need it.

## Young Eagles

By Renee Arntz

Last month we did not fly any Young Eagles but we need to have volunteers for a group of students and some of the kids that have been calling the airport for rides. I would like to fly them at least by the October meeting. It was proposed that maybe 1<sup>st</sup> or the next chapter meeting may work. Please let me know at the September meeting. I want to thank all of you that have either flown or help as ground volunteers this year. Hopefully we can make our goal for this fourth year in a row. We need to fly 25 more by the end of the year.



## Caught in the Web "55"

By Vickie Vandenberg

You may have noticed that the website has been down for a spell this past month. Hopefully, by the time you receive this newsletter, the technical difficulties will have been resolved.

Speaking of the website – we are always looking for input regarding what you want to see. Craig Tucker works diligently to make the sure the latest news is there for your reference.

I will continue to post the latest editions of various parts from the web on the meeting room bulletin boards for review by members who don't use the Internet. At the risk of boring everyone to death, I will circulate a copy of the member list at each general meeting in order to make sure the info is current and up to date.

Oh yes – we will also be working to get current pictures and profiles!!

## Chapter 55 Christmas Party

By Vickie Vandenbelt & Debbie Groh

I know - we are finally having a few days of summer and I'm writing about the Christmas Party, but the season will be here before you know it and we don't want anyone to miss out on this great event. (Anyone who was in attendance last year can confirm how nice the event was!)

So, mark your calendars for the party to be held on **Saturday, December 11<sup>th</sup>, 2004**. We will start with Hospitality & Hors d'oeuvres from 6:00 pm to 7:00 pm with the buffet dinner served at 7:30pm. It will again be held at the Vevay Township Hall; 780 Eden Road; Mason, MI. Cost will be \$12.00 per person.

PLEASE NOTE: The last date to confirm attendance and pay for your dinner(s) will be **November 27, 2004** – no exceptions. Please make checks payable to: *EAA Treasurer, Gregg Cornell*.

## EAA Chapter E-Gram Vol. 6 No. 7 September 3, 2004

### Sport Pilot Implementation Timeline

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Virtually every Chapter has someone who will be affected by the Sport Pilot Rule in some way. This can be someone anxious to return to aviation through the medical aspects of the rule, a converting ultralight pilot who is looking forward to sharing the flight experience by legally carrying a passenger, or someone deciding which of the exciting new Special Light Sport Aircraft to purchase. Many Chapters are contacting EAA for information

on how they can help promote Sport Pilot in order to recruit new members. They want to distribute information at EAA Fly-Ins, Airshows, county fairs, and shopping malls. All of this will be very effective if done well, and at an appropriate time.

For promotional purposes, the Sport Pilot initiative will really have several phases. During the first several months, the most appropriate action is in helping to educate the aviation community, including EAA members, CFIs, transitioning ultralight pilots, FBOs, etc. Although the rule is effective on September 1, 2004, in reality, many people will not be able to enjoy the benefits of Sport Pilot until the infrastructure is in place. The following is a timeline as to when various milestones in the implementation process are expected to occur.

Please remember that availability of materials is subject to FAA's meeting its target deadlines.

September 1, 2004

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- \* Current pilots can begin exercising Sport Pilot Privileges
- \* Non-current pilots can get flight review, meet currency requirements and exercise sport pilot privileges
- \* Ultralight pilots must be registered with EAA or one of the other two organizations to get full credit for training and experience.

October 2004

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- \* Owners of "fat ultralights" & two-place trainers can apply for N-numbers
- \* Practical Test Standards (PTS) for flight & knowledge tests will be available
- \* Guidelines for repairman training will be available
- \* DPE (Designated Pilot Examiner) & DAR (Designated Airworthiness Representative) applications will be accepted.

November/December 2004

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- \* FAA plans to offer first DAR training courses

January 2005

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- \* FAA plans to be ready to issue:
  - Sport Pilot Certificates
  - Sport Pilot CFI Certificates
  - Private Pilot weight shift & powered parachute ratings
  - E-LSA Certificates
  - S-LSA Certificates
  - Light Sport Repairman Certificates (Maintenance & Inspection Ratings)
  - Accept applications for additional category & class ratings
  - Hold first DPE (Designated Pilot Examiner) courses

January 31, 2007

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- \* Deadline for registered ultralight pilots to take the Sport Pilot flight tests without having to log additional hours
- \* Last Day an E-LSA certificate will be issued to a "fat" or two-place trainer

January 31, 2008

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- \* All ultralight two-place training exemptions expire

January 31, 2010

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- \* Last day that a Sport Pilot CFI may use a two-place trainer converted to E-LSA for compensation for flight training

EAA certainly encourages Chapters to introduce people to aviation through the opportunities presented by the Sport Pilot Initiative. At the same time, we encourage you to monitor the preparedness of your local community to support the interest of the budding newcomer. Please plan your promotional activities in accordance with the local availability of training, rental aircraft and related support in mind.



Meanwhile, remind all prospective entrants into the world of recreational aviation that the best first step for them to take is to join EAA and participate in Chapter activities.

For additional information check [www.eaa.org](http://www.eaa.org) or [www.sportpilot.org](http://www.sportpilot.org) or call the EAA Sport Pilot Hotline at 1-877-359-1232.

**It's Here: Sport Pilot/Light-Sport Aircraft Final Rule Effective Now**

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\*\*Somewhere in the United States on Wednesday morning September 1, a private pilot got into his or her cockpit, fired up the engine, taxied out onto a grass strip or paved runway and took off...and thus became the first official pilot to operate under new sport pilot/light-sport aircraft regulations. EAA will mark this important, long-awaited aviation milestone day with a staff celebration at its Oshkosh headquarters.

The sport pilot/light-sport aircraft final rule, effective, September 1, 2004, authorizes current certificated private pilots to begin exercising sport pilot privileges in eligible certificated aircraft (standard category or experimental amateur built). That is, with a current pilot's certificate and either an FAA airman medical certificate or a current and valid U.S. driver's license serving as proof of medical fitness to fly, a person is qualified to pilot certificated aircraft as long as they comply with the LSA rules.

(S-LSAs [Special Light-sport aircraft] and E-LSAs [experimental] will not be available until the ASTM LSA Committee completes and approves the ASTM International manufacturing standards.

For more detailed information on what this means to non-current pilots, ultralight pilots (who missed the Sept. 1 deadline) and more go to the story on the web at: [http://www.sportpilot.org/news/040901\\_splsa.html](http://www.sportpilot.org/news/040901_splsa.html)

**Chapter/Squadron Event Forms - Submit 30 Days in Advance**

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\*\*Please help us in better serving your Chapter or Squadron. Remember to submit your Chapter/Squadron Event Forms a MINIMUM of 30 days in advance of your event.

The Event Forms are required for your Chapter Insurance and must be reviewed for approval of the activity by the Risk Management Office. It is very important to submit the forms well in advance of the planned activities so that we are able to process the information and get back to your Chapter/Squadron for clarification of items as required. Time is also required to send certificates of insurance to the necessary parties and when information is received late, it is very difficult to perform the required follow-up. We need your Chapter's help in this important Chapter/Squadron function.

The required form can be found on-line at:

[http://www.eaa.org/chapters/admin/chapter\\_squadron\\_events.pdf](http://www.eaa.org/chapters/admin/chapter_squadron_events.pdf)

If the planned activity is strictly flying Young Eagles only, then the Young Eagles Rally Notice Form can be used. It is found on-line at and is required a MINIMUM of 2 weeks in advance of the rally:

[http://www.eaa.org/chapters/admin/forms/young\\_eagles\\_notice\\_form.pdf](http://www.eaa.org/chapters/admin/forms/young_eagles_notice_form.pdf)

Please note: Young Eagles Rally Notice Forms will not be accepted in place of the required Chapter/Squadron Event Forms when additional activities are taking place beyond Young Eagle flights.

If you have any questions on the insurance forms, please send an e-mail to Tammy Thomas at [tthomas@eaa.org](mailto:tthomas@eaa.org) or call 1-800-236-4800 ext. 6106.

**EAA to Honor Technical Counselors in Memory of Tony Bingelis**

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\*\*The Tony Bingelis Award recognizes EAA Technical Counselors for dedicated service and/or significant contributions in assisting members to build and restore aircraft. All honorees are carefully chosen by a committee of their peers as outstanding examples of people whose contributions have positively affected members' aircraft building or restoration projects. But they have to be nominated to be considered for the award. You may have a qualified Technical Counselor in your Chapter. Nomination forms for the Tony Bingelis Award can be obtained by contacting the EAA Safety Programs Office, PO Box 3086, Oshkosh, WI 54903-3086; calling toll free 1-888-322-4636 ext. 6864; or on EAA's website at [http://members.eaa.org/home/homebuilders/awards/bingelis\\_for\\_m.pdf](http://members.eaa.org/home/homebuilders/awards/bingelis_for_m.pdf).

The deadline for nominations is January 1, 2005. Do it now before you forget!

**Make a Difference Day**

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On October 23, 2004, all around the nation, volunteers will "Make a Difference" in the lives of friends, neighbors, and their community as part of an annual, one-day challenge issued by the Paul Newman Foundation.

Of course, that's what you do all year long through your involvement in the Young Eagles program. Thousands of EAA volunteers focus their passion and resources in an effort to "Make a Difference" in the lives of thousands of kids.

We're proposing that we participate in the 2004 "Make a Difference Day," organizing as many Young Eagles rallies as possible. Just imagine the impact such an effort could make - thousands of youth taking off around the nation on the same day, on what is sure to be a life-changing experience.

Make a Difference Day offers great opportunities for Young Eagles. First, it's a good time of the year to go flying and experience the fall colors, if you're in one of those areas of the country. Second, Make a Difference Day provides a reason to reach out to under-served children. Make this the day you

extend an invitation to the local Boys and Girls Clubs, Big Brothers and Sisters or any of the service groups located in your community. The Young Eagles message is one of inspiration, "if you dream it, you can do it." Third, the media coverage generated from our participation - locally and nationally - will provide Young Eagles with a platform to showcase our efforts; excite and attract thousands of new young participants; and recognize our dedicated volunteers. And fourth, the Paul Newman Foundation awards ten \$10,000 grants each year to organizations that participate.

We'd like to submit a report and seek selection for one of these prestigious national awards. If Young Eagles is selected, the prize will be put in our Young Eagles credit program, which allows our volunteers to keep on "Making a Difference" in the lives of young people, by providing scholarships to the EAA Air Academy.

We need your help to make this happen. Please contact our office at [yeagles@eaa.org](mailto:yeagles@eaa.org) so that we can gauge the impact EAA members will have on this day. We have created a generic news release that can be customized to your specific event.

Thank you for helping us continue to make a difference in the lives of thousands of deserving children!

For more information about Make A Difference Day, please visit the Make a Difference Day website at <http://www.usaweekend.com/diffday/index.html>.

**Upcoming SportAir Workshops**  
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September 10-12, 2004 Corona (LA area), CA  
Topic: RV Assembly

September 10-12, 2004 Griffin (Atlanta area), GA  
Topic: RV Assembly

September 25-26, 2004 Denver, CO  
Topics: Introduction to Aircraft Building, Sheet Metal Basics, Composite Construction, Fabric Covering, What's Involved in Kit building?

For detailed information on SportAir Workshops, including cost, course descriptions and how to register, go to the web at: <http://www.sportair.org/schedule.html> or call 1-800-967-5746.

## **FLY-IN NOTICES**

A Fly-In Chicken Dinner will be held Friday, Sept. 10<sup>th</sup> beginning at 4:30 at Wms. Co. Airport, OG6, just east of Bryan, Ohio. There will be a Classic Car cruise in and dance music. EAA Chapter 816 would like you to attend. See the bulletin board.flyer for details.

The 5<sup>th</sup> Annual USO Hanger-Dinner Dance will be held on Saturday, Sept. 11<sup>th</sup> beginning 6pm to 11:30 at the Dalton Airport, 3DA, in Flushing, Mi. Dance and swing to the big band music of the "Swing Shift" band. This event is sponsored by EAA Chapter 77. See the bulletin board flyer for details.