

# Leading Edge

Vol.2, No.4 June 2006



## Chapter 1414 at Poplar Grove Airport



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**. . . . and much more!**

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## Mission Statement

**Promote,  
encourage  
and facilitate  
an environ-  
ment that fos-  
ters safety and  
high standards  
in the design,  
construction,  
restoration and  
operation of all  
types of recre-  
ational aircraft  
as well as nur-  
ture camarade-  
rie and friend-  
ship amongst all  
members!**



## President's Column

This month we thank Mr. Bob Davis for his presentations on aerobatic flying and of his recent involvement with the EAA B-17 in California. Bill stressed safety in his presentation by showing examples of fatal situations, some of which were brought on by performing in con-

ditions of haze, causing marginal to poor visibility especially with bi-wing airplanes. As part of his B-17 presentation material, Bill showed video footage of the Aluminum Overcast's gear-failure landing that caused it to be grounded for repairs last year.



Frank Herdzina presents Bob Davis with one of his Cylinder Lamps.

The speaker for our June 13th meeting is Jim Auman. He is a "DAR, E-LSA and LSA-DAR" and will be speaking about airworthiness inspections.

On the home front, in April and so far in May, I have logged lots of cross-country time. First a trip to central Florida and then to West Virginia, and in doing so, was exposed to some elements that were turned into good learning experiences. Up to this point, I had never flown so far that I needed to refuel en route, nor taken trips that lasted more than a couple days, so I had been able to count on current weather reports and have very predictable conditions, going and returning.

The trip to Florida was planned for five or six days. I had planned to spend the first night in Louisville, KY, with my son, but due to high winds in that region, I delayed my afternoon departure from Poplar Grove to the next morning. This worked out real good, as I had calm morning air for this leg and didn't have to deal with ground transportation and spending the night. After refueling and loading Andy's stuff in the RV, we headed to middle Georgia to have lunch with my oldest brother, then on to central Florida and landed at Ft. Pierce, the final destination to visit a few days with my other brother in Stuart. We had favorable tail winds and the trip took a little less than seven hours total.

During the week, my brother wanted to do some sightseeing, so we went to the airport, refueled and went for a relatively short flight and I did not top off the tanks upon returning; a choice that would later be added to my lessons-learned column.

Our departure from Florida was delayed a few hours due to low overcast conditions, but this gave me time to contemplate the merits of having an IFR ticket. When the sky finally opened, we took off and discovered head winds in excess of that which was planned. The decision to not top the tanks had a domino effect, because it messed up our refueling plans. As I had no experience with running down to minimum reserve, we landed early to top off the tanks in Waycross, GA, about fifty miles short of the planned fuel stop. This meant that the next leg to Louisville would now be questionable. We ended up making it to Louisville, but only with minimum reserve fuel on board. During this leg to Louisville, I let one tank run empty so that for landing, the other tank would have the highest level possible.

After spending the night in Louisville with my son and his girl friend, I headed home and found a favorable tail wind at low altitude. The trip was a very enjoyable experience and I would not hesitate to do it again.

Tom Barnes

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# Frank Herdzina's Open House

Frank Herdzina opened his hangar on April 22 to the chapter membership for a "Restoration Progress Inspection." Approximately 75 people showed up to view a work of art in progress. Frank added "icing to the cake" by providing food and beverages for everyone.

The plane Frank is restoring is a 1930 - model BK-Bird . . . Upper Wing: span - 34ft, chord - 5ft 9in, area - 184sq ft; Lower Wing: span - 25ft, chord - 4ft, area - 82sq ft; length - 23ft, height - 8ft 8in, empty weight - 1199 lbs, useful load - 781 lbs, tank capacity - 37 gal, top speed - 110 mph, cruise speed - 92 mph, landing speed - 35 mph. The pilot flies from the rear seat.



The Bird fuselage with lower wings attached



The seat buckets. The hole in the rear seat bucket is there in case . . . .



The left upper wing panel



Aileron linkage detail



Right upper wing tip



Wing tip tubing to leading edge junction



# NC22246 Update

29 April 06

Pictures and story  
by Tom and Cora Latos

It has been a busy winter in hangar W-4, focused on the first restoration step for our 1939 Taylor-Young BF-50. The restoration plan is simple – panel forward first! How hard could it be? And along the way I have fielded the question all project owners receive many times – when is first flight? Pass the word – “Tuesday.”



65 hp Franklin – June 2005



Today

Parts, Parts, and more Parts! I started with a simple first step, find a MOH gasket set for the Franklin – if not – go to plan B, a 65 hp Continental. It took about a month of calling to locate a stash of NOS Franklin parts in Aurora, IL. The next step was to assess the engine bottom-end condition. The crankshaft was inspected by Steve Thomas' crew – magnaflux-ok, crank-standard but worn undersize. (The engine logs reported only 100 SMOH). This led to another round of calls across the country to locate NOS -0.010 rod and main bearings. Parts were located, crank ground and all required parts were inspected. NC22246 was on its way to retain Franklin power! The original magnetos and carburetor were serviceable and overhauled. A loaner prop was located in Moline, IL and retrieved.

The instruments (all three of them) were overhauled. The original Stewart-Warner combination gauge was re-installed. The original steel turnplate 12-gal fuel tank was badly rusted and removed. A serviceable tank was located, repaired and installed. And I now know that all T-craft 12-gal gas tanks from 1938 to today are interchangeable. The engine mount was inspected and painted and the Franklin was re-installed.

N22246, a 1939 BF-50 T-craft, SN 1193 was pressed into service as an engine test stand for the 65 hp Franklin 4AC176b2. Sunday, April 9 was a cool morning, so we started with a little preheat (two hoses for NC22246, one for Cora) The engine was successfully started and run, capping a 6 month overhaul and ending 50 years of silence.. This engine was last run in 1953 when the ship was taken out of service for re-covering. Speed was limited to less than 1000 rpm. The overhaul included engine mount, mags and carb, fuel tank and lines, and the SW big tach.



S-W Combination Gauge, Mag Switch and throttle



Preheating!

Big thanks to Charlie Sullivan, Joe Naebe and the crew at Poplar Grove Airmotive and Dave Griffith for all of the encouragement and advice along the way and my wife Cora, who was on the mag switch for the first engine run.

We are continuing to make progress - fuselage next, then wings and control surfaces as we count down to **“Tuesday”**.

# The Jackson 701

Pictures and story by Tom Jackson

In about 1993 I started having that addictive need to own a plane again.

Having restored many older machines (i.e. cars, lawnmowers, motorcycles, and boats in fact anything that has an engine) I decided to build a plane where I could do the work on it when necessary. I had talked to Ron Liebmann, years before, and he was telling me about the aluminum and other materials he was gathering for a plane he wanted to build. This sounded like a big project. One that might never let me fly, just work in my garage on the plane and I liked flying first. So, thinking about this I started looking at kits.

I looked at kits for probably 10 years. I also have more than 20 videos and stacks of brochures. Joyce and I also visited the Merlin factory in Michigan. Fortunately, I didn't decide on a Merlin since they went out of business. Just when I would decide on a certain plane another plane would come along and be the perfect one.

In 1997, I went to Sun & Fun to look over the latest planes of my dreams. The Searay and the Aventura, both amphibians, were just what I wanted. But after a trial flight in each plane, I decided that they were not what I was looking for. Also, one little incident with the Searay where an exhaust manifold came loose, went into the prop, and then through the fuselage made me think about pushers. I had been flying the plane immediately before that unfortunate or fortunate experience.

At this point, I went back to Zenith Aircraft Company whom I had looked at 10 years previously. I again looked at the 701 and decided to go to one of their workshops. During February 1998, Joyce and I went to Mexico, Missouri to build the 701 rudder and fly the 701. This experience helped me decide to build the all aluminum, high wing, tractor propelled plane. The plane isn't fast but it's agile and with its stol characteristics, it can go where other planes can't.

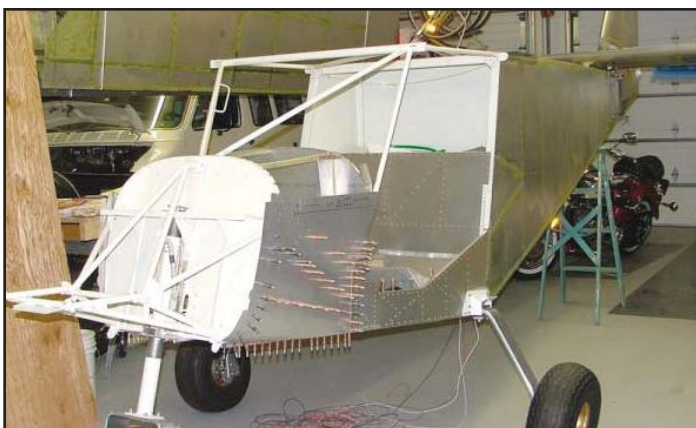
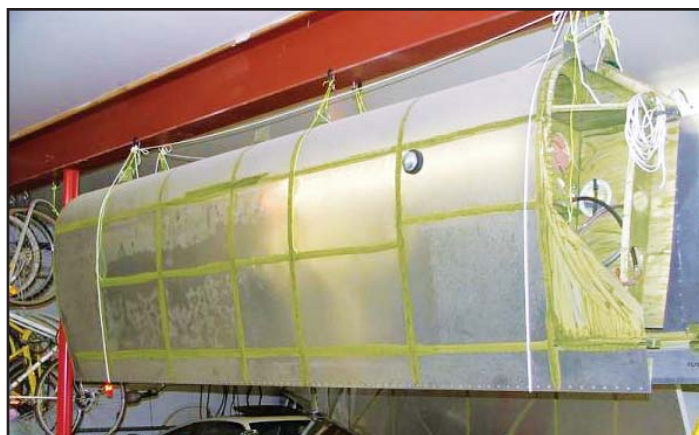
On June 17, 1998, I ordered the CH701 to be picked up on September 19, 1998 at Mexico, Missouri.



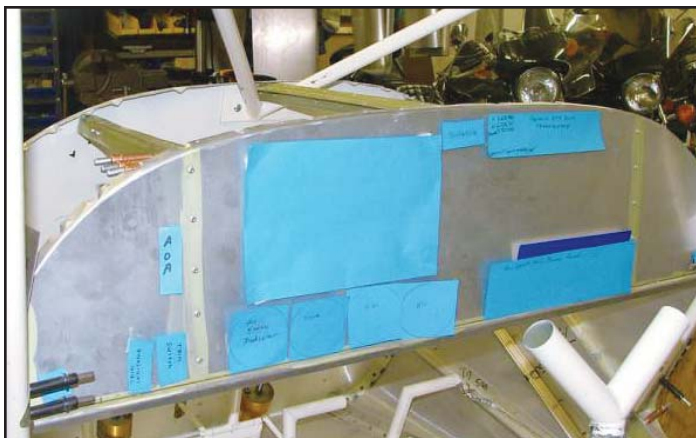
On September 19, 1998, Joyce and I packed all of the parts in our 1971 Dodge van with 394,000 miles on it and headed home. The Dodge van, with all those miles, well that's another story.

The date is 2006 and a lot has happened. Joyce and I have moved to Harvard, Illinois, we have a son-in-law, a daughter-in-law and four grandchildren. With all of these new projects, plus running a business during the summer for three months, things have taken a toll on finishing the 701 project.

The CH1 is nearing completion with only the details to be completed, in other words it is 95% complete with 100% to go. The pictures will help to show progress and lack of progress.







Folks are always asking when I will finish the plane and I no longer give a date but just say someday soon, I hope.

I have mentored several people into flying and building. I don't do workshops but I'm always anxious to show or help individuals with their interest in aviation just give me a call.

**FLY SAFELY**



## *Introduction to Flight* *5-13-2006*

Pictures and story by Dennis Blunt

Four pilots from Chapter 1414 participated in the Vintage Wings & Wheels Museum's "Introduction to Flight" on Saturday, May 13th. For the first time in 8 years, the weather did not co-operate. Rain and drizzle were present and a low ceiling dictated postponement of the flight until the following Saturday. We went ahead with the theory of flight class by ground instructor Bob O'Quinn, an engine shop tour by Scott Ross and Chuck Billman, an airline pilot talk by Ed Harvey, a tour of the museum by Patricia Cox and a pre-flight of the airplanes with the kids by the pilots. A big thank you to Chapter 1414 pilots Chirs Fisher, Bob Fry, Ron Cox and Alex Von Bosse. A thank you to John Larson for driving the people mover to the engine shop.

The next "Young Eagle Flight" will be Sunday, June 25th from 11:00 am to 1:00 pm, in conjunction with the museum's "Family Fly Day". We would like your help-to fly some kids. Contact Red Bainbridge at 815-282-5083



Chris Fisher and a group of "Young Eagles"

## *Dip Davis' Piper Colt*

Pictures and story by Dip Davis

I couldn't believe it ! Checking back in the records I found that it had been twelve years since we began the restoration of N5771Z, originally a Piper Colt, now converted to "conventional" landing gear which makes it a PA-22/20-108. Granted, I had been mostly incapacitated during much of the past two years but the main reason for the delay was inertia (the tendency for a body at rest to remain at rest).

Fortunately for me, Lee Hilbert had stopped by Midwest Flight Check at The Landings Airstrip and saw the airplane gathering dust. He discussed it with several friends and Frank Herdzina volunteered the use of his brand new "Bird" hangar for assembly.

On April fool's day (how appropriate), Lee with his truck and trailer, Frank, Bernie McLean, Buck Hilbert and several others whose names I failed to note, gathered at The Landings and gathered up all the pieces, loaded them into Lee's trailer and hauled them to Poplar Grove.



We had used an engine hoist to load the fuselage onto the trailer, but not having a hoist at the other end, we lifted the thing off the trailer using Frank's brand new Wilson door as a hoist



... I'm telling you "it won't fly without wings and a prop!"

I got the new wing struts painted and the following week, Frank, Bernie, Tom Dietrich, Craig Day, and some other good Samaritans whose names again elude me (Forgive me fellas, your contribution is really appreciated), got the wings and tail surfaces installed and hooked up.

Craig fabricated a missing air scoop for the carb inlet and I got most of the paint stripped off of the strut fairings, prop spinner and miscellaneous inspection plates preparing to paint to match the little red wagon.

There's still a lot of detail work left but I'm confident that the "Tail Dragon" will fly again and before too long thanks to the combined effort of some really wonderful people !

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## *Restoration News*

by Frank Herdzina

**O**n the first of April, seven of us met Dip Davis at the Landings to move his project to Poplar Grove for completion. Dip has been working on this airplane on and off for the last twelve years. The airplane started out as a Piper Colt with a nose wheel. In the process, Dip decided that this was to be a real airplane. Needless to say, the big wheel in front was traded for a small wheel under its tail. Several other modifications were made along the way to clean up some of the drag. The recovering of this project is first class. It's almost impossible to find the edge of the tapes under this beautiful paint job. The deep dark red with its shiny wet look does make this plane stand out. Well, we have a few covers and fairings that missed the paint gun the first time. Over the next couple of weeks we will get them painted and get this beautiful bird in the air.



On Thursday evenings I spend my time at the Poplar Grove Vintage Wings and Wheels Museum as a member of the R- Team (Restoration-Team). Several months back Steve Thomas was able to obtain a 1941 Aeronca Chief project for the YEA group. As it turns out, this airplane came with some history. Both Dick Thomas, Steve's dad, and Frank Machesney of Machesney Airport were previous owners of this airplane.

The R-Team and the Youth Exploring Aviation group (YEA) have teamed up to restore this airplane to flying status. Young adults ages 14 to 18 having an interest in the restoration of this airplane should contact the museum office for details. The R-Team meets every Thursday from 6 to 9 PM in the Springfield Hanger, which is the first building to the west of the museum. Why don't you bring your son and/or daughter out next Thursday and check us out?

This restoration can provide some of the knowledge one can use in shopping for their own project or just building the confidence to tackle the recovering of the tail feathers on the old cub. We started this restoration by stripping this airplane clean. Anything bolted on was removed. Since the glue joints on the wing ribs were deteriorated, we decided to build new ribs from scratch. Knowing the cord length of the wing and the air foil, the group will calculate all the points necessary to build a new wing rib jig. This jig will be used to fabricate all of the ribs required, thereby insuring a uniform profile across its width. Wing fittings will be stripped clean, examined for defects, repaired or replaced and painted for reassembly to the new wings.

With all that going on last month, I was only able to get a few things done on my project; one being the left hand aileron which I must admit was quite a task. The spar for this aileron consists of four pieces of spruce - each corner angle is different, with only one straight edge, the balance either being tapered or curved.

I did stop long enough to clean up the mess and mop the floor for the open house. The weather was fantastic . . . you could not have asked for better. Cars and airplanes were parked everywhere. Over 70 people showed up, hope you were one of them. If not you missed out on some good VFR Hangar Flying.

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## *Mark and Carolyn Pasqualino's T-34 has Wings*

*Joseph, the Amazing Technicolor Airplane*

got his wings Monday, April 24<sup>th</sup>

Here's a link to a picture.

<http://www.airport-data.com/aircraft/photo/017362.html>



# Member Profile

## Tom Jackson

This project started somewhere around December 7, 1941. I wasn't very old at that time but I can remember the radio broadcast, the radio sat on top of the refrigerator, that Pearl Harbor had been attacked by the Japanese. It wasn't long before my father and other fathers on our block in Chicago were given the job of a civilian defense captain. They were issued a four or 5-gallon hand pump sprayer, in case of a bombing, to go out and extinguish fires.

My father was in his mid forties so he was not drafted for W.W.II but he was drafted into W.W.I. As he tells the story, he was on a troop train at Union Station, an announcement came over the public address system that W.W.I was over, so everyone got off of the train and went home. W.W.I was going to be the last war ever according to the wise ones.

With W.W.II came all sorts of preparations, like rationing of war materials and seeing lots of planes flying over my house.

I can remember large fleets of B-24s (hundreds) flying at what seemed to be tree top level going over our house in Portage Park. Often fighter squadrons escorted these fleets. This started my interest in aviation.

So, my first contact was all sorts of toys that were replicas of different planes. At this time, I was only 4 or 5 years olds. As time went on, I used my spending money, five to ten cents, on gliders. The type that was punched out of balsa wood and you merely slipped the wings and tail into slots in the fuselage. This taught about c.g., balance, elevators, ailerons and wind conditions. We (other kids on the block, one I remember and we are to his day friends, was Ron Liebmann) would go to the school ground (Portage Park Elementary School) and spend hours flying our gliders. If we were lucky, an up draft next to the school building would carry our glider out of sight. Often we would chase the planes through the neighborhood unless they landed on the school roof, at which time we would stand around and hanger talk about our great flight.

As I moved out of the glider phase, model building became a big thing, making replicas of W.W.II planes. Soon after W.W.II, I started to think more about having a real plane, one that I could actually fly. I was probably about 7 or 8 at that time. I can remember looking through the Chicago Tribune classified ads and wishing I had the money to buy a plane. With the Big War over, planes still in crates, were selling for only several hundred dollars but with no money and the lack of parental encouragement, so much for that idea of have a real airplane.

I decided that someday I would fly and have a plane. Meanwhile I had to be content with making models, flying U-control planes, model fuel powered gliders with timers, and co2 powered planes.



Photo supplied by Tom Jackson

In 1949, my desire for the freedom of flight took a slight turn and I was able to talk my dad into buying a new American Motor Scooter for \$100.00. It had a 3 ½ hp B&S engine, but it was wind through my hair. My mom said no scooters and motorcycles, which probably helped me get the scooter since it went against mom's wishes. All she said was someday they will pick your brains off the road. She was a nurse and had seen plenty of accident victims involving motor bikes. For several years I ran with kids who had Whizzers, 125HDs, 125 Royal Enfields, and Cushmans. This was between the ages of 11 to 15 years. During this time, I had graduated to a Powell lightweight motorcycle with a one-lung 10-hp engine. This bike was fast; often I was clocked at 90+ mph. I had odd jobs by this time to feed my addiction to machines. In 1953, I purchased a used 1950 HD 74FLH, which I rode until 1972. With a young daughter and infant son growing up it seemed that my wind through the hair days were over. Little did I know that once addicted it doesn't get out of your blood. I now own eight bikes and I wish I had not sold my H-D.

I graduated from high school in 1955, college in 1959, and got married in 1960 to Joyce.

In 1963, my parents were killed in a traffic accident and I realized that my flying had to be realized now since who knows what tomorrow will bring. This was still my big dream, to fly.

I started lessons at Sally's Flying School on November 24, 1963 in N98808 a Piper J3. Blair Woodin was my instructor. I received my private license on July 1, 1965. I owned a new Grumman American AA-1B; N9978L for several years but soon the cost of kids and meeting ADs forced me to sell my little fighter. All of my flying time, other than N9978L has been in rented aircraft.

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## *Rib stitchin' party*

Pictures and story by Tim Gallagher

On April 29<sup>th</sup> we hosted a good old fashioned rib stitchin' party in our hanger. Fourteen people showed up throughout the day. Breakfast treats were provided by Suzie, my favorite copilot and build-mate. Bravo Pizza supplied lunch time fuel.





The turnout was perfect in that there were never too many folks around and not enough things to do. Most of the guests were first time or novice stitchers. A few had tied before and mentored the newbies. Some of the fellows were turned loose on the left wing – in order to prep it for cover. Everyone who walked out the door attained ‘expert rib stitcher’ status (although someone required intense remedial training – lips are sealed).



The whole right wing on our Pober Junior Ace was stitched and, after further review, only six knots were deemed unacceptable. They were cut out and re-tied within minutes. That put the success rate at 98% - **knot** bad for a bunch of rookies!

# THE LITTLE RED SCHOOLHOUSE

by Dean May

There are two types of drag that effect an aircraft while in flight. They are Parasite drag and Induced drag.



Parasite drag is caused by simply moving an object through the air. As the object is moved, air molecules have to be displaced and moved to accommodate the object. These molecules resist this movement and therefore produce drag.

The larger the object, the more the air molecules have to move, and therefore, the more drag produced. A flat plate being pushed through the air creates a very large object for the air to move around and creates a very large pressure drag on the plate.

If the object were to be made smaller, such as if we were to rotate the flat plate to more align with the airstream, fewer air molecules have to be displaced. This greatly reduces pressure drag, but we now run into a problem with friction of the air molecules along the surface of the object. This friction of the air molecules is called skin friction drag. If one were to look very closely at the surface of an object moving through the air, it would be discovered that the air molecules very close to the surface are not moving at the same speed as the free airstream above, but are actually remaining attached to the surface. A few centimeters away from the surface of the object, the air molecules are moving at the speed of the free air stream. In between, the air molecules are individually moving at differing speeds, from zero up to the free airstream speed. The friction of these air molecules against each other causes skin friction drag.

This area where the air molecules are moving at differing speeds relative to each is called the boundary layer. Typically, the boundary layer is very narrow at the leading edge of an object and becomes progressively thicker towards the rear of the object. The amount of drag produced depends upon the type of air flow within the boundary layer, laminar flow and turbulent flow. Laminar flow is the smooth, orderly, and layered flow of air molecules within the boundary layer. The streamlines of airflow all remain in the same relative position to each other. Turbulent airflow occurs when these streamlines breakup and become to intermingle with each other. Because of this intermingling, turbulent airflow is thicker than laminar, and causes more drag.

Obviously it would be beneficial to maintain laminar airflow over the entire surface of an object, but this is impossible. Fluids exhibit a great desire, on their own, to go turbulent. Even a slight irregularity of the surface within the laminar flow area will effect the boundary layer and cause it to become turbulent. That is why

it is very important to keep the leading edge of a airfoil as clean and smooth as possible.

Because of the shape of a typical wing, both pressure drag and skin friction drag are present. The amount of drag depends upon many factors, some of which are the density of the fluid, the size of the object, the shape of the object and the roughness of the surface of the object.

The other form of drag produced by an airfoil in flight is Induced drag, or drag

due to lift. Any time a low pressure region is produced on the upper surface of a wing, the air near the tips of the wing will move from the bottom surface towards the upper surface. This movement of air molecules requires energy, which produced drag. Of course, the more the differential in pressure between the upper surface and the lower surface, the greater movement of air molecules and the more drag produced.

Additionally, as an airfoil is rotated to a greater angle of attack to increase lift, a rearward component of lift is also produced. Lift is always produced perpendicular to the surface of the airfoil. As the airfoil is rotated, a component of the lift produced is in a direction opposite to the flight path of the airfoil, causing drag.

On any aircraft, parasite drag is very small at low airspeeds and increases exponentially with and increase in airspeed. At higher angles of attack, or low speed, induced drag is very large, and at low angles of attack, or high speed, induced drag is lower. If the total drag produced by an aircraft throughout its flight speed envelope were to be graphed, an interesting correlation is observed. At very slow speeds the aircraft experienced a very high total drag on the airframe due to induced drag. As airspeed is increased, induced drag decreases, and the total drag is reduced - until a point. After this point, as airspeed is increased, total drag begins to increase as parasite drag takes over. This point is called "L over D Max". This is the airspeed at which the ratio of lift produced to drag penalty is greatest, and where the aircraft is the most efficient.

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## **OX-5 Engine Presentation**

### ***You're Invited...***

**O**ur own Dick Hill will be giving a talk on the OX-5 Engine on Saturday, July 8, at approx. 1:30 PM at the Poplar Grove Vintage Wings and Wheels Museum. Chapter members are invited to join some people from the Gallery of Flight Museum at Gen. Mitchell Field in Milwaukee to hear Dick share his knowledge about this engine. A couple of other aviation related groups have also been invited. Please join us for this informative presentation. The exact time will be determined soon.

## ***Pancake Breakfast***

**by Chapter 1414**

**O**n Sunday, July 2, our chapter will be holding a Pancake Breakfast in Frank Herdzina's "Bird" hangar near the Museum. After breakfast, you can enjoy the Classic Car Show being held at the Museum. Breakfast will be served from 7:00 AM until 11:00 AM. Suggested donation for breakfast is \$5.00 per person.

**We will need lots of help to set up, cook, serve and clean up. Please sign up at the June 13 meeting if you can help. Even if you can only stay for an hour or two, your help would be greatly appreciated. This could be a good fundraiser for our chapter, so we need everyone to pitch in and help.**

**Also, spread the word to your friends and neighbors, that they can come and have breakfast and enjoy seeing some award-winning classic cars.**

**If you have any questions, call Jeannie Hill at 815-943-7205 or Carol Von Bosse at 815-544-7689.**

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## ***Invitation to Galt Airport Picnic***

EAA 932 located at Galt Airport (10C) is honoring Vintage Aero and Vintage Aircraft at a fly-in picnic on Saturday June 17. We would like to invite you and any of your members (especially those flying vintage aircraft) to join us for lunch. We'll supply a barbecue and some soft drinks, each participant should bring a dish to pass. Arrivals should be timed after 11:00 am with lunch planned for 1:00 pm around the small lake on the southeast side of the airport.

In case of leaking skies, the picnic will be moved into a large hangar. If the weather is IFR, the event will be canceled. Please RSVP [planejohn@aol.com](mailto:planejohn@aol.com) at least one week prior to the date to assure we have a place for you.



# *Flying Fun at its Peak*

by Bob O'Quinn

When I was assigned Breanna, I was assured by YEA Scheduler Red Brainbridge that she had done her part in preparing for her first flight. Through my initial introduction to Breanna's parents via phone and several e-mails back and forth as we tracked weather and school and work schedules to set a time and date, I discovered Breanna to be a true aviation enthusiast with the backing and support of her family



Finally, on Friday, May 19, I experienced one of the most rewarding flights of my life when I met 16-year-old YEA candidate Breanna Schmidt and her father, Jeff, at the Poplar Grove flight office.

I performed my preflight with her, explaining what I was looking for and why. Then, with her strapped in my Cessna 120, I reviewed the flight controls with her "following" me on the yoke and rudders. I read my checklist out loud to let her know what I was doing. While I handled the throttle, she actually taxied us to the run-up area where I took over with the pre-takeoff checklist.

After reviewing with Breanna what we planned and reaffirmed that the decision to perform various maneuvers was up to her comfort level at all times, we did the took off on runway 27. Soon after takeoff, I trimmed the plane for a normal climb, pointed out the plane's nose and wing angles in relation to the horizon, and turned the flight controls over to her. My first request was for a standard 90-degree left turn, followed by a 45-degree right turn to safely indicate our exit from the traffic pattern. While continuing our climb to 3,000 ft., I requested that she make gentle clearing turns alternately to the left and then right. I was amazed at her excellent coordination and control of pitch, and I asked if she really had never flown before, which she confirmed. When asked whether she had practiced on a computer's flight simulator, she smiled and nodded her head yes. Lesson well learned!

After leveling off, I asked for a 90-degree turn left to align with the section lines of fields and roads below, which she executed with positive control of bank and near-perfect coordination. After telling her the importance of looking to where she was turning instead of over the nose, she maintained near-perfect pitch as well as bank and rudder coordination.

The only time I requested the flight controls was to demonstrate a few versions of power-off stalls and steep turns, but only after she described her understanding of the maneuvers and confirmed that she wanted to see them but not do them. Next, I described lazy-eights and asked if she wanted to see some, to which she nodded yes. She might not have wanted to perform this fun maneuver but she had a nice smile on her face and said it was fun.

After the lazy-eights, I turned the flight controls back over to Breanna to simply enjoy and do some sight seeing before we headed back to the airport. Approaching Poplar Grove, I reduced power and talked Breanna through pitch changes so we could descend to pattern altitude and enter the light traffic. She confirmed that she was comfortable making a low, high-speed pass over runway 27, which we had discussed earlier. With my hand only on the throttle, Breanna flew us down to about 20 feet over the beginning of 27 and maintained that altitude to the end before pulling the plane up to climb altitude and then I took over again to fly the pattern and land. Total flight time: 40 minutes!

Some youngsters don't show much of a reaction afterwards but Breanna couldn't seem to wipe the smile off her face as she and her father expressed their appreciation. I was so impressed with her attitude and capabilities that I promised her we will fly again soon; she deserves it.

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## *First Annual Southern Wisconsin EAA Chapter Poker Run*

First Annual Southern Wisconsin EAA Chapter Poker Run. This event has now been finalized, and here are the dates and rules:

Listed below are the dates & locations

1. May 20, 2006 - 44C Beloit, Chapter 60 Pancake Breakfast, 7am-noon
2. June 18, 2006 - 99C Palmyra Flying Club Breakfast, 7am-noon
3. June 24-25, 2006 - 7V3 Big Foot, Chapter 1323 Breakfast, 7am-1pm
4. July 8, 2006 - KOSH Oshkosh, Chapter 252 Burgers and Brats, 10am-2pm
5. August 20, 2006 - 02C Brookfield, Vintage Chapter 11 Ice Cream Social, noon-5pm
6. August 27, 2006 - 87Y Blackhawk, Chapter 93 Brats & Beans, 11am-3pm
7. August 27, 2006 - 10C Galt, Chapter 932 Open House, 10am-3pm
8. September 23, 2006 - Y50 Wautoma, Chapter 1331 Breakfast, 8am-noon
9. October 8, 2006 - 88C Palmyra, Chapter 1177 POKER DAY, 7am-noon

Summary of rules:

- \* Attend the fly-ins listed above (fly-in or drive-in).
- \* Pick up your token to bring to the Poker Day event.
- \* No limit to the number of tokens you can collect and present, except you can only have one token from each event, so attend all events for the best chance.
- \* Standard poker hands apply (best 5 cards)
- \* 50% of prize pool to best hand, 30% to 2nd place, and 20% to 3rd place.
- \* You do not need to attend Poker Day to win, you can have some one else present your cards.

Event Contact: Jim Beckman:

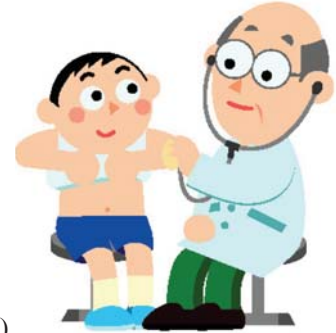
jbeckman@charter.net <mailto:jbeckman@charter.net> 608/362-9118



## **The Successful Flight Review**

How to Prepare yourself for your next flight review.

“In effect, the flight review is the aeronautical equivalent of a regular medical checkup and on going health improvement program.” (faa.gov)



I recommend preparing yourself for the part 91 oral portion of your flight review by signing onto [http://www.faasafety.gov/ALC/course\\_catalog.aspx?categoryId=15](http://www.faasafety.gov/ALC/course_catalog.aspx?categoryId=15)

You will have to register using your email address, but the course is free. At the end of the course, pilots can take an online exam in order to test what they have learned. The course is only a few pages long, but includes many links for further study. Take the course and the exam. I would suggest printing off the exam and reviewing your results with your instructor during the oral portion of your flight review.

The course is divided into four categories as defined by the acronym:

- P Pilot responsibility.
- A Aircraft airworthiness, maintenance, and inspections.
- V enVironment- airports, airspace, air traffic control, and weather.
- E External pressures, decision making and risk management.

Of course, your instructor will want to tailor the flight review to your individual needs as a pilot. A good flight instructor will ask how many hours, how often, what type of aircraft, what type of operations (IFR/VFR/cross country?/towered airports?).

Since the FAA narrowly defines what encompasses a flight review, the flight instructor may take some liberty in defining what exactly constitutes a successful flight review. At the very minimum, a flight review, “consists of a minimum of 1 hour of flight training and 1 hour of ground training,” including a review of current general operating and flight rules of part 91 and any maneuvers or procedures which the flight instructor deems necessary for the safe operation of aircraft.

A flight review is required every 24 calendar months unless other conditions are met such as completion of the WINGS program, or achieving a new certificate or rating. The flight review is meant to be industry managed and FAA monitored.

### **What defines a successful flight review?**

A successful flight review will be accompanied by a signature and signoff. An unsuccessful flight review means the flight instructor will sign your logbook as a record of instruction given. Even though the flight review is not an exam, if a flight instructor decides that a pilot could benefit from extra instruction, the flight instructor can withhold a flight review signoff. According to Advisory Circular 61-98A, “The CFI must be aware that the flight review is not a test or check ride, but an instructional service designed to assess a pilot’s knowledge and skills.”

Be prepared for your next flight review by logging onto the FAA’s safety website using the link above. Take the review course and test your part 91 knowledge. Your CFI will thank you for being so prepared. Happy flying.

### **References:**

- Pictures complements of: Microsoft Word Clipart.
- 14 CFR Part 91
- Advisory Circular 61-98A
- [www.faa.gov](http://www.faa.gov)
- [www.faasafety.gov](http://www.faasafety.gov)

Questions, Comments? (nickhelsper@letu.edu)



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## ***Buy, Sell , Trade, Give-away or Participate!***

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Classified ads may be submitted by any chapter member free of charge. If you have an item that you want to throw away, don't!  
List it here and we'll find a new owner for it. - - Remember, one man's junk is another man's treasure!

If anyone needs some form of help, you can list your request here.  
They will run for about 3 months unless canceled or renewed.

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**For Sale**  
**1 year old End-T-Hangar with loft and full bath.**  
**Overlooking runways at Poplar Grove Airport.**  
**(NE of Rockford, IL).**  
**\$80,000.00**  
**contact Ken Rentmeester**  
**at 847-372-9374**

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**Four Sitka Spruce panels** available for wing or tail spars, parts makeup, etc. Panels are  
3/4" thick x 10" wide x 18' long. Bargain priced at 1/2 of retail for quick sale.  
Call Lon Danek, 847 381-4286.

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### ***Events Calendar - 2006***

June	13,	Chapter 1414 Board Meeting	5:30 PM	Poplar Grove AP Maintenance Hangar
June	13,	Chapter 1414 General Meeting	7:00 PM	Poplar Grove AP Maintenance Hangar
June	18,	Mishawaka Pilots Club Airport Breakfast		Elkhart, IN
June	18,	Father's Day Fly-In/Drive-In Breakfast		Mineral Point, WI
June	18,	Father's Day Fly-In Breakfast		Palmyra, WI
June	18,	Wings & Wheels Pancake Breakfast		Sheboygan, WI
June	18,	Annual Fly-In/Drive-In Breakfast		Waupaca, WI
June	18,	Father's Day Fly-In Breakfast		Baraboo, WI
June	25,	Family Fly Day (Young Eagle Flights)		Poplar Grove Airport
July	2,	Chapter 1414 Pancake Breakfast	7:00 AM til 11:00AM	Frank Herdzina's Bird Hangar
July	2,	Classic Car Show	7:00 AM til ???	Vintage Wings and Wheels Museum
July	11,	Chapter 1414 Board Meeting	5:30 PM	Poplar Grove AP Maintenance Hangar
July	11,	Chapter 1414 General Meeting	7:00 PM	Poplar Grove AP Maintenance Hangar
July	24-30,	AirVenture 2006		Oshkosh, WI
August	8,	Chapter 1414 Board Meeting	5:30 PM	Poplar Grove AP Maintenance Hangar
August	8,	Chapter 1414 General Meeting	7:00 PM	Poplar Grove AP Maintenance Hangar
Sept.	16,	Introduction to Flight		Poplar Grove Airport

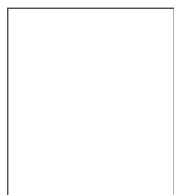
# Premeeting Checklist

- \_\_\_ • **Bring suggestion for activities, etc.**
- \_\_\_ • **Your member profile for the Newsletter**
- \_\_\_ • **Any aviation article of interest that you would like to share with the other members**

EAA Chapter 1414 meets on the second Tuesday of the month in the Maintenance Hangar at Poplar Grove Airport, unless notified otherwise in the newsletter. The meeting starts at 7:00 PM.

The Newsletter is always looking for interesting articles and pictures by our chapter members. If you have written anything or would like to write something or have pictures that you believe would be of interest to the chapter membership, please submit what you have. The preferred method for the editor to receive articles is by e-mail to: ***flydo27@northboone.com***. Alternately, a ZIP disk or CD with articles written with any major word processor with a printed copy may be submitted to any board member at the meetings.

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