

EAA CHAPTER 80 NEBRASKA IOWA



News!

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September 2005

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FLYING A FORD by John Linke

In 1928, Bernie Pietenpol designed and built a little stick and fabric two seater known as the Aircamper. Like so many designers before and after, Bernie was looking for an affordable flyer that could be built, flown and maintained by any air minded person who chose to take the time to construct such a flying machine. Of all those designers, before and since, Bernie probably came closer to that mark than any other.

His engine of choice was the Ford Model A. It was plentiful and cheap and easily converted and put out 35 to 40 horsepower with some reliability. His method of construction was 1"X1" wooden longerons and supporting members, with a simple straight axle for two spoked 28" wheels. Since most of the fields of the time were grass, brakes were not used and a skid on the rear was sprung to take up shock and act as a brake to slow the ship down on landing. He developed his own airfoil shape as he was not satisfied with the performance of the flat bottom sections of the time.

By the mid-1930's, Pietenpol Aircampers were being built all over the country and a redesign and publication in a popular magazine, assured even more would be started. It was an easy to fly, forgiving plane of minimal features that allowed a person to fly inexpensively. Just what the doctor ordered, seemingly.

Fast forward to August 2005 and the culmination of ten years work on a vintage Pietenpol Aircamper. This version was built by Mark Berger of Norfolk, Nebraska, in his house, garage and hangar, with assistance from his son Matt. At times, the project appeared more daunting than either had anticipated at the beginning but through financial strain and other life changing vexations, N803MB was finally ready for its airworthiness inspection. John Graham from the FSDO in Lincoln, Nebraska made the appointment to inspect the finished airplane on August 10 at 11:30 in the morning. An hour later, the labors of a man and his family were designated a full fledged flying machine.

Mark decided to build the plane just like Bernie might have, from the original 1932 drawings, with the exception of the one piece wing. Manhandling 28 feet of wing in this day and age is quite daunting. Mark's experience as a model builder stood him in good stead in the construction of the Aircamper, as it is just like a big model airplane. His workmanship is quite good and the fit and finish on parts reflects his dedication to doing the job right.

I came into the picture about 4 years ago, as I rented the hangar directly across the taxiway from Mark's hangar. I watched as the ship got pieced together, the engine, then the fabric, then the ground runs of the Model A with the cast iron head. Later, an aluminum head was installed, saving a few pounds. I did some courtesy inspection of the project as things progressed, adding my two cents when appropriate but mostly just watching things go together. Neither Mark nor his son are pilots though Matt has had some flight training. As we came to know and trust one another over the years, Mark asked if I would be interested in doing the flying, once the ship was certified. I replied that I would consider it an honor.

What's it like then, to fly a design that's older than I am by 25 years, with an engine that's at least that old too? I have to tell you, it flies just like an airplane. Bernie did most of it right from the get go. Pitch stability is good; lateral stability not so good. With no dihedral in the wings, and big barn door ailerons out near the tip with no differential throw, adverse yaw is very real. It is a rudder airplane, requiring copious amounts to lead into and out of turns. Visibility on the ground stinks! The radiator pretty well hides any and everything that is right in front of you. You sit pretty high up in the cockpit (Bernie was a bit shorter than I am) and getting in requires some manual dexterity. Foot in, lean across the cockpit, grab a strut, lean some more (you grab the strut to keep from falling off the other side), pull your left leg in then wiggle into the seat. Tight and uncomfortable without a cushion, it is pretty sparse by today's standards. And that's the rear cockpit! The front is even worse! There is a rudder bar for your feet to dance on, and no brakes on this particular airplane. It has a tail skid, designed just for grass, so we trundle it out to the take off area and walk the path before launch to assure there are no big holes to fall into.

Mark pulls the prop through four blades with the fuel on and the mag switch off. There is a single Slick magneto on a machined drive that fastens to the crankshaft. A belt runs from there to the water pump. Switch on, throttle closed and he snaps the prop and the little four banger barks to life. It settles

into a throaty, if not authoritative idle at 700 turns, according to the tachometer. Oil pressure is low, about 15 to 20 PSI when it's cold to around 50 when it all warms up. The Ford Model A gauge is just perfect; the late model Steward Warner reads too high. When the water temperature comes up off the peg, we are ready to go. Check the controls, lean out both sides of the cockpit, look overhead for traffic (oops, the wing is there, can't see a thing!). Advance the throttle smoothly with the stick back slightly and the machine moves ahead slowly. It bounces over the uneven ground for a bit, neutral stick and the tail comes up. A few seconds later, the wheels are feeling light so a bit of back pressure and the ship breaks ground, at maybe 40 mph. The little vane type airspeed indicator on the left wing jury strut doesn't go that low, so you just kinda feel things. Pitch response is good, with a good feel. A gust lifts a wing and a bit of rudder and a lot of stick get it back on an even keel. Climb out around 50, the airspeed indicator is starting to move, and the rate seems comparable with a C-150 with two on board. Not all that bad for 40 horsepower. The engine is turning about 2000 turns on the tachometer, and we hold all of this steady for awhile, until we get to the altitude where we want to cruise. It bounces around a bit if the air is turbulent but deft touches of stick and rudder keep things on an even keel.

Next month: More on Flying the Pietenpol AirCamper

Meeting Time & Location.

The Chapter 80 monthly meeting will be held at 7:00PM on Monday, September 12th at the CAF Hangar at the Council Bluffs Airport, IA. To get there take I-80 east from Omaha, then take the MADISON AVE exit- exit number 5, turn RIGHT onto MADISON AVE, then turn LEFT onto VALLEY VIEW DR. go to end then turn RIGHT onto MCPHERSON AVE. go about 2.18 miles, then turn RIGHT onto MCCANDLESS DR. Or you could fly, but check that the airport is open since it is scheduled to be closed until the 12th.

September Program.

Our program is the CAF Hangar. You might want to arrive early to see George Stratbucker fly in the CAF P-51 Gunfighter, if the airport is open. The preflight starts at 6:30 with the flight scheduled for 7pm. Heads up on the October program - Mike Howard will talk about his trip to the Wild West and mountain flying tips.

Young Eagles News. Your Choice on Sept 11th. Either go to Plattsmouth, NE for the Kass Kounty King Korn Karnival (KKKKK) or Clarinda, IA for Fly Iowa. We will be supporting Young eagle flights at both of these events. Please call Jim Rattle or Bill Stromenger if you can help and have not already signed up. For more info on both of these events go to <http://www.plattsmouthchamber.com/pdf/2005KingKornSchedule.pdf> or www.flyiowa.org

In addition to the above, Tom Trumble of Chapter 569 in Lincoln is looking for Young Eagle pilots to help at Fremont on Saturday Sept 10th. Like last year this is a Civil Air Patrol Open house. He needs help starting at 9am until about 1pm. If able to help, call Tom 402-464-3089 or 402-540-6089.

Chapter 80 Flight Rally. Yes, it is time for the annual Chapter flight rally brought to by the devious mind of Mike Howard – Rally Master. We will be holding our third sort of annual flight rally on October 22nd. In addition to the flight rally we will be having a chili feed after the event for all the survivors, those who didn't and those who are just hungry.

Whip up a pot of your best chili, or get store bought if you have no pride, and bring it to Wahoo. You might bring a desert too if you or your significant other has a special recipe. We will plan to eat at noon. I will put the touch on Rob Hansen our treasurer to pay for the bowls, spoons, drinks and the rest of the fixins. Wish me luck. Mike Howard.

Note: The Rally will start and end at the Wahoo Hangar with about 12 waypoints (~120 miles) to be over flown this year. You will need a good plotter, current Omaha sectional and a good set of eyes (two or more sets in one plane is an advantage). Come to the September & October meetings to find out more.

Offutt Fly-in/Open House Oct 15th. This is an opportunity to visit the base, attend briefings and get a chance to fly one of their simulators. We do not have all the info right now, but hope to by the meeting.

Basic Parameters of the Certification of Aircraft and Airmen for the Operation of Light-Sport Aircraft Rule.

Each month we will be listing a synopsis of the different aspects of the light-sport aircraft rule. We will cover the aircraft, pilot and repairman requirements. For more details visit one of the many web sites that cover this topic. Note: I now remember where I found this - EAA e-hotline.

The Sport Pilot Rule:

- A sport pilot may exercise flight privileges in one or more of the following aircraft categories: Airplane (single-engine only); Glider; Lighter-than-air (airship or balloon); Rotorcraft (gyroplane only); Powered Parachute; Weight-Shift controlled (e.g. Trikes)
- Creates a new student sport pilot certificate for operating any aircraft that meets the definition of a light-sport aircraft.
- Creates a new sport pilot certificate for operating any aircraft that meets the definition of a light-sport aircraft.
- Creates a new sport pilot instructor certificate.
- Requires FAA knowledge (written) and practical (flight) test.
- Credits ultralight training and experience toward a sport pilot certificate.
- Credits sport pilot flight time toward more advanced pilot ratings.
- Requires either a 3rd class FAA medical certificate or a current and valid U.S. driver's license as evidence of medical eligibility (provided the individual does not have an official denial or revocation of medical eligibility on file with FAA).
- Does not allow carrying passengers for compensation or hire
- Allows sharing ("pro-rata") operating expenses with another pilot.
- Allows day VFR flight only.
- Allow sport pilots to fly vintage and production aircraft (standard airworthiness certificate) that meet the definition of a light-sport aircraft.

Sport Pilot Instructors:

- Creates new sport pilot flight and ground instructor certificates.
- Allows instructors to use ultralight exemption experience.
- Allows conversion to sport pilot instructor status for ultralight instructors.
- Allows current CFI's to train sport pilots.

EAA Chapter 80 August 2005 Minutes

08 August 2005

The meeting was called to order at 7:42 PM by President Ward Combs in the hangar of Hangar One at the Millard Airport. Prior to the meeting, several chapter members gave rides to other members in their aircraft. There were about 40 members and visitors present.

A motion was made and passed to accept the July minutes as printed. Newsletter Editor Will Kroeger requested article submissions from our members.

Treasurers Report:

Treasurer Rob Hansen reports income of \$150.00, expenses of \$372.55, and an ending balance of \$2,196.75.

Young Eagles:

There are Young Eagles events at Clarinda and Plattsmouth on September 11. Your assistance is appreciated to simultaneously staff both events.

Builders Reports: Member Bob Condrey reports his RV-10 fuselage is nearly complete.

Tech Counselor / Flight Advisor: None

Fly-out Schedule: Chair of the Fall flying event Mike Howard reports we will have a flight rally on October 22. The event will start and end at Wahoo. Bring charts, navigators, and cryptographers.

Librarian report: None

Old Business: None

New Business:

- All members are encouraged to sign the Great Plains Wing, CAF guestbook at the hangar during the open house on Saturday, August 20.
- We are working on holding a meeting at the CAF hangar in September.
- There was some discussion of the Offutt open-house August 27-28.
- Bob Condrey won a silent auction at AirVenture and was able to fly right seat in a Ford Tri-motor for twenty minutes.
- T.W. was handing out newspapers from AirVenture.
- Dean Kruger reports there were 93 warbirds in the air simultaneously at AirVenture.
- Bill Stromenger reports it was a great experience flying to AirVenture.
- Doug Humble reports Burt Rutan signed his hat.
- Larry Smith thanked us for use of the Wahoo Hangar for a private Pilot aural test.
- Chapter 80 member ??....flew in the heritage flight at AirVenture.

Program:

Rides in member aircraft at the beginning of the meeting was the program for August.

The meeting adjourned at 20:15.

Respectfully submitted,

Kevin Faris, Secretary

Calendar of Events: B-Breakfast/ L-Lunch

1st Sat of month	Fly-in B	York, NE
3rd Sat of month	Fly-in B	Crete, NE
Sep 10/11	Fly Iowa	Clarinda, IA
Sep 11	Fly-in B	Carroll, IA
	KKKKK	Plattsmouth, NE
Sep 25	Fly-in B	Norfolk, NE
Oct 2	Fly-in B	Neligh, NE

Special Events.

Sept 21-25 Cessna 120/140 Assoc. North O.

Sept 24 Wings Over Wheat & Mid America Short
Wing Piper Club Fly In, Junction City, KS.

Sept 24 **Nebraska Statewide Fly-In** Hastings. 8-4 closed 1200-1400 for airshow. Weather alternate: September 25. Activities include a free fly-in breakfast, food vendors, static displays, flyovers, official dedication of the Hastings Hangar onto the Register of Historic Places, air show, and much more. Free shuttle service will be provided in the afternoon from the airport to the fairgrounds for live quarter horse racing.

Ultralight exhibit at the **Strategic Air & Space museum** Opens Oct 1st. Current 1945 Exhibit closes Sept 18th.
November 12th "Wright Brothers: The Birth of Aviation"

For Sale. Stits Sky coupe side-by-side with stick project. 90hp Franklin with 50hrs. Needs wing rebuilt, prop, windshield, interior and cowling. Stored 3-4 years. \$5800. Contact Dick Baber 712-322-8074 or 402-697-5160 or dickba-ber@att.net

WANT and NEED to SALE ENGINE. Cont 0200A out of C150, Overhaul 9-19-79, Tach time: 3780, 1244 Hrs. on eng. Complete engine...everything there. Call: Jan Daniels Home: 402-493-0789 (try 1st) or Cell: 402-670-2375. If your not interested I would appreciate you passing the word to your friends. Don't know where else to turn. Have a guy inter-ested, but dragging his feet....been going on WAY TO LONG!



Experimental Aircraft Association -
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12916 Millard Airport Plz.
Omaha, NE 68137-4280

Pictures For September 2005



John Linke flying the Pietenpol AirCamper.
Photo from John Linke



Larry Bohnker giving a ride in his Zodiac Ch600 at
the August meeting.
Photo by Kevin Faris