



President's Column, Book 4,

→→→→→→→→→ Chapter 7, July 2002 →→→→→→→→→

Read the last 3 years articles for the July newsletter to try and get some inspiration for this month's tiptoe through the tail-dragger droppings. The wife and I had some super tail winds going down to Tyler, TX for a couple's golf tournament with a court friend and saw RV speed out of the old 182. That was exciting to say the least.

The RV was just going good when I started the chapter job. Now 96WG is over a year behind schedule due to the time spent for Ch 135, but I really feel, most of the time anyway, that it's been worth every minute of delay. I'm getting tired of flying the 182, but she's a real good plane to be one's second choice of flying machines. The delay in getting 96WG done has also hurt me professionally, as I should have left the Des Moines area for a different job in the courts a couple of years ago. I was unwilling to push as hard as needed to guarantee me a change in position since it would have possibly meant the RV wouldn't get done, or at least take an extra few years.

What have I gained from this delay on 96WG? The opportunity to meet a large bunch of fine people has been the biggest gain. All you past and present board members, and even those who have moved away or become inactive, I count as friends as well as other people who have enriched and educated the aviation end of my persona. Do we always agree? God help us if we did, because we'd really be a boring group. Financially Carolyn and I have probably gained because I didn't go out and purchase my own spam can to keep flying, and I haven't bought that large expensive executive style house. Maybe after retirement!

Between the time I wrote this and you reading this, Ch. 135 will have helped the Knoxville Airport with their pancake breakfast, had the Flying Start meeting at Ankeny, and flown a few more Young Eagles. Right now I'm trying to decide which one of these I can spend the few hours that I have allotted for helping with EAA items. Right now I'm planning on going to Knoxville, because it gives me an opportunity to fly the 150, and on the way home I can practice some SPINS for the year!! YEA, COOL!

Gene and I did some wiring on his RV-9A today. Got both wings done, the fuselage aft of the seats completed and a good start forward of that. As Roger has told us all, a good plan makes for fast work. I've also been working on the fixtures to hold various parts of 96WG for painting, and want to get that job started about the middle of July.

What's left for a perfect July, outside of a few less traffic cops running everywhere except the interstates? Oh yes, our 50th Anniversary Convention. OSHKOSH, Mecca of light-plane drivers the world over and home of a once-a-year forgetting that the world outside of airplanes is a valid place. Wonder what our convention will be like the year after Sept 11? I had to miss Oshkosh last year because of too much work and lousy weather on the day John K, Wes, and I were to fly up. This year I'll just get a weekend, but look out the year that 96WG flies!! Carolyn is coming with me this year to see what us crazy airplane drivers see in this gathering. Can't wait! See you the 13th in Ankeny.



The Leader In Recreational Aviation

REMINDER:

CHAPTER DUES
ARE NOW PAST
DUE. PLEASE GET
TO ROGER ASAP.
MAIL TO ADDRESS
ON BACK PAGE

NEXT MEETING:

JULY 13, 2002

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ANKENY AIRPORT 7:00 p.m.



Instrument Training (You've gotta try this)

by Roger Boco

I never thought that I would be interested in getting my instrument ticket. I am sure that I am like a very large number of you out there who thought, "It would be nice, but I wouldn't use it and the cost is prohibitive. Maybe someday-----" I went along dumb and happy and thought that I was an "OK" pilot. The more I flew, the better my landings were, and I felt comfortable in the air that I could get anywhere, depending on the weather, and get back again safely.

I went along like this for about 13 years or so until a friend of mine who I work with talked me into taking a 3 day intensive Instrument Ground school. He bugged me about it for about 6 months before I finally bit on the idea. I thought, "Sure, why not? It isn't too expensive, and I might learn a lot that would help me with my VFR flying."

The ground school was very intensive. Friday evening from 6 until 10PM. Saturday and Sunday from 8AM until 9 or 10 at night. We covered everything. My head was spinning. They fed us and the food was outstanding. Better than any course at a fancy hotel. My friend's wife could be a chef at any hotel!! We were treated royally with food, drink, etc. It made the learning process a lot more tolerable—even enjoyable.

Well, I made it through the ground school classes and got my diploma. I decided to take my instrument test up at the FBO in Ankeny. I took the test and, to my surprise, I passed it the first time. I didn't get a score of 100 like I did on my private, but a very respectable score. It is amazing how you can cram stuff into your head and then spit it out a few days later. You can retain a lot of information with a cram course like that.

Passing the written with no great hassle, kind of, forced me to decide to get my instrument rating. I made arrangements with an instructor and we set up a schedule for flying. I figured I could fly about twice a week, so I decided on Tuesdays and Thursdays from 5 to 7 PM. Weekends during the summer are just way too hectic to try and schedule in advance, so the weekday schedule seemed to make sense.

My instructor is Sean Davis. He is quite young, about 23 or so. Since I am almost 51, he really seems young, and is like being instructed by one of your kids. That lasted about 15 minutes!! Sean is a real professional CFII and knows his stuff! We eased me into the plane and all of the hood work. He is pretty low key and has a pretty good sense of what you can handle at a certain time. My time with him has been pleasurable, yet very demanding.

As they say, "Instrument flying is like learning to fly all over again." Is a very true statement. I was always comfortable flying, but get under the hood, with the wind blowing you around, thermals, and tons of things that you have to do all at once, and it becomes a totally different experience from VFR flight. Just something as simple as turning on the fuel pump and changing tanks, can put you into a 45 degree bank and dive!! You quickly learn that that is not acceptable, and you have to really scan the instruments! If you get, even a little, fixated on one task or instrument, you screw up other things. It is a totally different world, yet you learn, after a fashion, how to do multiple tasks and still stay on course and at altitude. (Still working on that one, some of the time.)

Sean tells me that it will probably take about 50 hours to get my instrument done. I have about 20 hours now, and some-days, I think that I can do this—other times, I wonder what idiot allowed me to get up in the sky! I guess that is why they call it training. You can make a beautiful ILS approach one day, and then totally botch it the next. Hopefully, someday, I will be able to do the same approach properly more than one time in a row. You ask—What have I learned from my instrument training? Let me answer that:

1. I was a pretty mediocre flyer before.
2. The elevator trim really is mainly only for airspeed, and the throttle really is mainly only for altitude.
3. NDBs (ADF radio) are good for more than listening to the radio when you get bored in the air.
4. NDB approaches really do make sense, and they really do work. (especially if you could couple them with having a GPS that would give you an accurate ground track.)
5. ATC people tend to like you better and (appear) to give you a little more respect. You just seem to fit into their system better.
6. VFR traffic and IFR traffic really don't mix together well. (Just try shooting approaches at Ankeny when the airport is a little busy and you will see what I mean.)
7. You really can safely fly a plane down to IFR minimums and still have time to safely land the airplane.
8. You can actually do a Zero-Zero take off in an airplane. (I did one under the hood on 31 in Ames a few weeks ago. Scared the you know what out of me, but I did it and it is possible. I hope that is the last time I ever do that. I promise never to do that for real in IMC conditions.)
9. ILS approaches are really neat, and they do work pretty slick, but the Localizer and Glideslope needles get really sensitive when you get close to the airport.
10. CFIs and CFIs are saints. Be kind to you local CFI.

In conclusion, let me say, no beg, that each of you VFR flyers out there, to go out and get about 5 to 10 hours of instrument instruction. Even if you never go on and get your instrument ticket, the time will be invaluable. You will be a much better pilot.

OILS

written and contributed by John Barcus, FBO from Osceola

What makes oils different from others and does it really matter to your engine? On face value, oil is not exactly a gripping subject. Pilot's interest in oils tend not to extend beyond the short term of checking that it looks brown and slimy, up to the correct mark on the dip stick and moves the gauges the right way.

Owners, especially those who have had their engines disassembled for overhaul, tend to take a somewhat deeper interest in the long term ramifications of an engine oil diet. There are three distinct breeds of oil for aircraft piston engines: Mineral, semi synthetic and synthetic. Each refiner claims his brand is best. Like the makers of veg-a-peel machines, laundry detergent or cold remedies, each claims his is the best.

Not surprisingly, in a competitive market, there are differences of opinion on what is good and bad about each type of oil depending on which oil company expert you are listening to. We all agree that oil has four main functions: First, it lubricates. It does this in two different ways. By interposing a film of oil between moving parts so that they don't actually touch and wear each other down known as hydrodynamic lubrication, and by modifying the surface chemistry of the substances. In our case metals involving boundary lubrication. Have you got that?

In addition, lubricating oil suspends dirt and wear particles and carries them out of the engine when you drain the oil, so why not drain the oil cold, let all the dirt and particles settle to the bottom and then drain the oil? Oil cools the internal parts of the engine that are inaccessible to cooling air, particularly the pistons, and it seals components from heat, pressure, corrosion, oxidation and contamination. Oil has come a long way since aircraft first flew. Early engines were lubricated with whatever was handy that might work, among the concoctions were vegetable oils made from castor beans and rapeseed and what is now called mineral oil. With a multigrade labeled 20W/50 the first number refers to a viscosity, surprisingly, despite the advantages only have of piston aircraft oil sold today is multigrade. The first number refers to the viscosity of the oil. At 0 degrees F it has the viscosity of 20 weight oil. The second number refers to viscosity at 210 degrees F. Its design operating temperature and this must be 50 weight because clearances in modern airplane engines running at normal operating temperatures are designed for the film thickness provided by 50 weight oil. A single grade 50 weight oil provides the correct viscosity at 210 degrees F, but when cold it becomes much more viscous. At 0 degrees F, oil is as thick as honey. The thickening occurs at low temperatures, the paraffin in the oil turns waxy. Take the temperature low enough below 0 degrees F, and a straight 50 weight oil will be no more inclined to pour than a cold candle. Watch out now for that cold engine start. Cold thick oil cannot flow through the tight clearance that separate cams from valve lifters and crank shaft journals from bearing surfaces. Without lubrication, they rub on one another. Metal to metal causing wear so we can now concur that most engine wear can be traced to a lack of lubrication during the starting process.

I have a friend who has become an expert in the fabrication of cylinder baffles, and oil cooler location on his engine. He wants it to run cool. Is that correct? I have seen an awful lot of aircraft flying with oil in the 130 to 170 degree F range. Is that good or bad? **Bad** is the answer. It is too cold to get the water out and you will always have water in your oil from condensation and because the engine produces water while it runs. Now remember this, you've got to get the temperature above 212 degrees F. You should have an indicated oil temperature of at least 180 degrees F so that the oil can burn off water as it passes through the engine. The water is what is shortening the life of a lot of engines. If the indicated oil temperature is 160 degrees F, you can fly all day and not boil out the water. The oil typically picks up 30 to 50 degrees as it passes through the engine, yet water will cool off quite adequately at 200 degrees F, it just takes a little longer. If you run an engine 30 minutes every time you start it, you will never collect enough moisture to be a problem but I concede we don't always do that, particularly in cars. The moisture content combines with sulphur, a by product of combustion, produces nitric and sulphuric acids. When the engine sits idle, these acids eat away at its guts and since water is heavier than oil, it sinks onto the lower half of the bearings. It eats their surfaces, leaving tiny pin holes of corrosion that give the decay and wear processes a foot hold. So let's say a water content of more than 25%, more than one part in 400, is unacceptable. The boiling point of water decreases with altitudes so at 10,000' on a standard day, it boils at 194 degrees F. Therefore, why the concern about heating the oil to 212 degrees, boiling point of water at sea level? The colder temperatures at altitude reduces the temperature increase of the oil as it passes through the engine.

The book says you should preheat at 10 degrees F, but not everybody does. If everybody preheated as they were supposed to, you don't need the low temperature performance oil. But I guarantee you they are not all preheating. Clearly there are areas within the piston engine that see temperatures in the region of 550 degrees F. What does a cylinder wall see in the combustion chamber? Here it is with a coating of oil on it and a fire being lit! Most airplane engines are air cooled and run hot in the areas of the cylinders, pistons and valve trains. Going too long between oil changes can over-saturate the additive's abilities to suspend contamination. Oil cannot overcome neglect and I can tell you it is pure neglect to use a car oil in an aircraft engine. A forced landing looking for a place to happen! Remember the four months in the oil drain interval specified by the engine manufacturers is more critical than the 50 hours and so she said to me, look that oil is brown and slimy, so how can it do so much?

EAA CHAPTER 135 BOARD MEETING

June 24 , 2002

The Chapter 135 Board Meeting was called to order by President Bill Gast at 7:02 pm

Flying Start & Membership - June 22, 2002, Wes and Roger gave a report on Flying Start. Roger and John Nelson signed up 3 new members, and sent applications to 2 more that were interested.

Hartman Project - Board decided that they will wait for Mark's floor to be done, and then start assembling the project. If they begin as late as January 2003, they are sure they will have it completed by September 2003. (editors note: Are we really sure we can finish it? I know you guys, and your projects)

Vice President - John reported that the July and September meeting speakers would be announced later. August meeting will be the picnic at Ankeny Airport. He also had no open houses scheduled.

Secretary - Reported that the room at Willow Creek has been reserved for the Christmas Party on December 8, 2002.

Treasurer - Roger announced that the Replica Fighters Association Fly-In would be September 13-15, 2002 in Osceola.

New Business: The nomination committee will meet during the picnic, to pick members for October elections. Jack also announced that the 3rd week in June 2004, Knoxville will host the National Ercoupe Convention. Wes reported on the Aviation camp. He reported that he had Brant, Mike Lossner, John Nelson, Rick Milburn, Bud Bolkin, Wayne Tompkins all helping with the rib building. He had wood donated from Brant as well. The board passed a motion for Wes to purchase saws and staples to continue rib building and replace broken ones of his, in the amount of \$100.

Board Reports:

Rob - Sold the BD5

Mark - Has the floor leveled to within an inch. Almost ready for that concrete.

Paul - Has about 5 more hours to fly off on his Glastar. Working now on fixing problems with it.

Jack - Reported on the Ercoupe convention

Bill - He and Gene worked on the wiring on Gene's RV9 .

Wes ended the meeting with an announcement that he needs help with the rib building at Fly Iowa at LeMars on the July 6-7th weekend.

Meeting was adjourned at 8:16 pm.



EAA CHAPTER 135 MONTHLY MEETING

June 8 , 2002

Meeting was called to order by President Bill Gast at 7:06 p.m. No guests were present.

Flying Start - Roger reported for John Nelson on the June 22nd Flying Start outing at the Ankeny airport. He passed out flyers for event. John needs to know who will be available to give rides that day.

Young Eagles - IT WAS SO NICE TO SEE OUR YOUNG EAGLES COORDINATOR!!! Alan reported they had a great turnout at Winterset. Working on a cub scout troop in the area next. He asked any members to contact him, if they had any groups interested in flying.

New Business - Nothing

Old Business

Hartman Update - Roger passed around a new photo he received from Hartman's daughter. It shows a different angle, and a little more detail on the plane. The board decided at their last meeting to wait till Mark gets the concrete poured in his barn, before construction would begin.

Reports:

Treasurer: Roger reported \$4114.15 in the treasury.

President: Bill reported no news on the B-17 Spring 2003 schedule.

Vice President: John reported no open houses have been scheduled for the near future.

Jack Arthur announced the Knoxville Flyin on June 30th, 7-11 am, with a work day on June 29th in the afternoon.

Jack and Alan Core presented an excellent program on procedures for paperwork, registration, bill of sales, when you are registering a new plane. They reminded everyone to not forget to check for liens on a plane before you purchase it! You may be responsible for any outstanding debts. It was a very informative presentation.

The "group" decided to not have project reports, so the meet-

IT'S PICNIC TIME

Come out and join in the fun. Good food, and great friendship and conversations. Chapter picnic will be August 10, 2002. 2 pm, eat at 5 pm, at the Ankeny Airport. Bring a dish to pass, and the chapter will furnish the drinks, meat, plates, forks, and cups. BRING THE FAMILY!!! Call or e-mail us if you're coming. eaachapter135@aol.com, or 515-999-2053.



WE NEED A HEAD COUNT BEFOREHAND

The Arm Chair Flyer

by John Kennelley

With Father's Day just passed and with three daughters, I reflected on young ladies, and how times have changed, to a large extent, to allow them to pick a field of work in which to toll for a living wage.

I did say to a large extent because there are still a lot of things holding women down, which brings up several interesting studies about young women in the history of aviation.

A new book out called, "The Powder Puff Derby of 1929" by Gene Nora Jessen brings out some of the trials and troubles of young ladies and their quest to race from California to Ohio.

While the book will give you all an idea of the times just before the big depression, it leaves a lot unanswered. While it follows Louise Thaden (1905-1979) and her quest to fly and then enter and win the First Race Just for Women, it also lets you see several of her fellow flyers and the trouble they had.

There is no interesting technical aspects on the planes just passing notes on make, engine, and sometimes color. But the pictures of the ladies added to the style in which they are presented was a nice touch.

At the end of the book were many bio's of what the people involved went on to do. This section alone was worth the \$16.95 price.

The chapter has been lucky to have some very talented women and it's a pity we don't have more. We need more! So, if you know of any women out there trying to knock on the door of aviation, help them, as much as you can. You never know to what great things she may aspire to and can reach—with your help. Our help.

Good flying and good reading

MEMBER PROFILE



John Kennelley



John describes himself as a 61 year old book worm, who is a maintenance electrician for Mercy Hospital. He is also the chapter Vice President. He has been involved in the chapter since 1969 when a friend of his, and the friends dad restarted the chapter. The friends dad was building a project, and even though John was not, because of his love of aviation, he decided to become involved.

John has wanted to build a flying project, but he just never got the time required to put into a project. His love for aviation, especially antique aircraft, is what hs kept him involved in EAA in some way since 1969.

John's advice to those people that have not joined a chapter, and are still thinking about it: "Get involved, even if you don't fly or have a project. There is a place for you in the chapter. Take advantage of what the chapter can offer you."

To those of us already involved in the chapter John offered this advise: "Participate in the chapter. Your participation is what will make our chapter better. Don't be afraid to step up."

CHAPTER DUES ARE NOW PAST DUE!!!!

Send your check to avoid missing any newsletters!!!

NEW ITEM FOR THE RV'S

I received an email from a gentleman who has developed a "Tip-Up/Slider" Canopy for the RV6, RV7, and RV9 aircraft. He says that loading baggage is really easy with this canopy. Getting a fold-up bicycle in is effortless. His name is Rich Meske, from Columbus, OH.

Check out his web-site at : www.aircraftextras.com

CALENDAR OF EVENTS

July 6-7, 2002 - Fly Iowa, LeMars, IA Airport

July 13, 2002 - Chapter meeting at Exec I facility at Ankeny Airport, 7:00 p.m.

July 13, 2002 - Iowa Aviation Hall of Fame Banquet, Greenfield, IA 641-343-7184.

July 15, 2002 - Chapter 135 Board Meeting. 7:00 p.m. Call a board member for location.

July 23-29, 2002 - EAA Airventure 2002, Oshkosh, WI

August 10, 2002 - Chapter 135 Annual Picnic at Ankeny Airport. Bring a dish to pass. Call us if you're coming.

September 13-15, 2002 - Replica Fighters Sponsored Fly-In, in Osceola. Gerald Clark for details. 641-342-4230 e-mail: gclark@pionet.net

October 8-9, 2002 - Annual Aviation Conference, Gateway Center Hotel, Ames, IA 515-256-5180

PROP WASH

Roger and Donna Bocox
10746 NW 103rd Ct.
Granger, IA 50109
chapter135@aol.com



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CHAPTER DUES ARE
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Chapter 135 Officers and Board Members

PRESIDENT:	BILL GAST	284-6234	wgast@ix.netcom.com
VICE-PRESIDENT	JOHN KENNELLEY	285-2259	
SECRETARY/NL EDITOR	DONNA BOCOX	999-2053	chapter135@aol.com
TREASURER	ROGER BOCOX	999-2053	roger9102@aol.com
WEB SITE			www.eaachapter135.org

BOARD MEMBER (B)	TECHNICAL COUNSELOR (TC)	BUSINESS MANAGER (BM)
YOUNG EAGLES COORDINATOR (YEC)	FIRST FLIGHT COORDINATOR (FFC)	FLIGHT ADVISOR (FA)
JACK ARTHUR (B)	287-8833	sky3044g@aol.com
BARRY CLEMENTS (B)	967-2355	b2clem@worldnet.att.net
MARK KOKSTIS (B)	961-2816	
MIKE LOSSNER (B)	243-2490	mostfantasticcub@aol
PAUL STEINGRABE (B)	265-1371	pdsifly@aol.com
WES OLSON (CBM) (B)	279-3847	flywlolson@dwx.com
ROB MILLER (B)	314-3706	flghtmchnc@mchsi.com
MIKE ABRAHAMS (B)	981-0381	ppcmike@aol.com
ALAN CORE (YEC)	961-4524	indypurr@juno.com
FLOYD NEFF (TC)	259-3088	
R. GERALD CLARK (FA)	641-342-4230	gclark@pionet.net
DAVE STILLEY (FFC)	987-5793	vikingdvr@aol.com
JOHN NELSON (FFC)	276-7646	
BOB KEENAN (TC) (FA)	964-5211	keenflyer@msn.com
TOM BURMEISTER (TC)		
BRANT HOLLENSBE(B)	221-0970	bhollensbe@mchsi.com