

March 2010

Experimental Aircraft Association Chapter 33

A monthly publication of the Dr. Alexander M. Lippisch Chapter of the Experimental Aircraft Association, Cedar Rapids, Iowa.

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A Different Kind of Book

By Keith Williams

Many of you may be familiar with the FAA book "Airplane Flying Handbook." It's a good book, filled with flying truths.

Today, we can always have that book available without actually carrying the book!

There's one catch, however. The catch is that we must have an iPhone, an iPod touch, or an iPad (all products of Apple Computer). If we meet this requirement, we can carry this book, in electronic form, with us any place we go!

Many books are available for these modern devices, including Airplane Flying Handbook. That means that if you have your electronic friend which you, you can have a copy of the book readily available for reading during otherwise wasted moments.

In fact, you could have hundreds of books in your shirt pocket! How handy is that? I've enjoyed reading a few pages of Airplane Flying





Handbook while waiting. My reading has reinforced what I thought I already knew. It has also given me ideas as to how to present information to my students in ways that I had not thought of.

Most importantly, I have learned things that I didn't know! And that's after flying for over 50 years! That's about all I'll say about the contents of the book. You probably get the idea that I think it's a good deal and that every pilot who has the proper electronic "toys" should have a copy to read whenever he or she has an odd moment.

If you have such a device, it'll probably be with you at all times. Why not put it to work and have it carry your Airplane Flying Handbook and other aviation related books for you?

Of course there's no such thing as a free lunch. But when compared to a \$100 hamburger, this comes pretty close to free. The price of the book is only \$1.99! It must be purchased and downloaded from the iTunes store.

Note: This only works with Apple products! They won't work with your Kindle, 'droid, or any other cellphone with iPhone-type capability.

Now for the rest of the story:

This application and others are created by Double Dog Studios. <http://doubledogstudios.com/> This company is the latest creation of our former member and president, Todd Millard, and his brother, Terry. This company was formed specifically to create applications for the Apple products.

To date, they have five aviation related applications available, including Aeronautical Information Manual.

They also have a non-aviation application which is very good and is available free! It is titled "We The People" and is about our government. If you have the equipment and kids in the family, I highly recommend this application. It should be worth an "A" in government class!

Todd's "studio" (laboratory?) is near Steamboat Springs, Colorado, where there is now about 2 feet of snow on the ground. But that's OK, because Todd and his family moved there last year so they could ski more conveniently.

We miss Todd but I'm glad that we can still enjoy his talent through his company's products.



Easy Engine Pre-Heater

By Steve Ciha

Anyone that knows me knows that when it comes to spending my money, I like to spend it wisely. I put some of my philosophy to work this winter when I found that I would really like to go flying but the Lycoming had been thoroughly cold soaked and was well below freezing temperatures. Looking at the Operators Manual told me that they did not recommend starting an engine during "extreme cold". So it comes down to determining what extreme cold is I guess? Since the engines come from Pennsylvania I would think their version of extreme would be down around zero degrees or thereabouts. The reason that you do not want to start an air cooled aircraft engine when it is very cold is due to the unique thermodynamic qualities of interacting aluminum parts with steel parts. They have different rates of expansion and contraction and it is possible for the aluminum crankcase and crankshaft bearings to actually lock up on the steel crankshaft in sub zero weather. If you start an engine at that time it isn't good for anybody! I decided that a little pre heating was in order.



Several of you have engine oil heaters or something that will put a little heat into your engine. That's a good thing. I never did this, being mostly a fair weather flyer. My wife had one of those super duper hair dryers laying on the vanity counter and I thought to myself, "preheater". 1800 watts of electric heat is a substantial quantity. I found an old piece of red scat tubing that I duct taped on the end and it looked something like this.



So I turned on the engine monitor before I tried my preheat and it showed an oil temp of 23 degrees. I stuffed the end of the scat tube in the bottom of the cowl and turned it on for a half hour. It brought the temperature of the oil up 20 degrees in that half hour. At that point I was comfortable with starting the engine and flying, and so I did. It was a short flight though. My wife was due back from the movies later that day and although I am afraid of spending money I am more afraid of her and needed to get the hair dryer back on the vanity countertop.

Wheel Balancing

By Steve Ciha

I have had problems over the years with nose wheel shimmy with my RV-7A. I wasn't really aware of this too much until I landed in formation with Tom Olson and Terry Sherman one time and they told me it looked like the nose gear was about ready to fly off the plane. Most of this problem stems from a nose wheel that has a lot of rolling friction. Van used to use a Cleveland nose wheel that was a great wheel but it cost about \$350. He found another wheel made by Matco that cost about \$125. Looking at them they look about the same but the Matco wheel had lots of rolling friction and when the nose wheel touched down during a landing it caused the nose gear leg to go into a harmonic motion back and forth. If you happened to drop into a pot hole when the leg was at its rear position, the plane would either flip over or buckle the nose gear. Neither was a good option.



Angles clamped to a workbench

I was able to take a lot of this shimmy away by buying a Cleveland wheel. Van no longer stocked the axle for this wheel so I asked Terry Sherman to turn one out on his lathe. Terry did a great job on this and the two parts mated up perfectly. A test flight revealed that 90% of the shimmy problem was gone. It still happened occasionally. I thought perhaps I had a wheel balance problem, so I got a couple of aluminum angles and clamped them on a level workbench. I then set the wheel and axle assembly on these angles to determine if there was an out of balance condition. The wheel rotated back and forth for several seconds and eventually stopped. Reminded me of a roulette wheel. I marked the high point of the wheel and this indicated a location to attach lead weights. I bought some big sinkers at Gander Mountain and smashed them flat and put a little arc into them to match the shape of the wheel. All in all I attached a total of 3 ounces of lead to get the assembly balanced. I used epoxy glue to do the attachment, figuring I could use heat to loosen the epoxy when the time comes to change tires. I have heard from others that double sided tape works well for this also. Test flying revealed that now nearly all of the shimmy problem is gone.



Lead weights epoxyed in place

Read Back - The Wild Blue

By Jim Meade

Stephen Ambrose was a celebrated historian who wrote the wildly popular Band of Brothers story about E Company, 506th Regiment, 101st Airborne. It was turned into an acclaimed mini-series on TV. Ambrose also wrote many other popular histories.

In *Wild Blue, The Men And Boys Who Flew The B-24s Over Germany, 1944-1945*, printed by Simon and Schuster, New York, in 2001, Ambrose chooses as his main characters the crew of *Dakota Queen*, led by later Senator and presidential candidate George McGovern. McGovern flew his full 35 missions for the 741st Squadron, 455th Bomb Group, 15th Air Force out of Italy in the closing months of World War II.

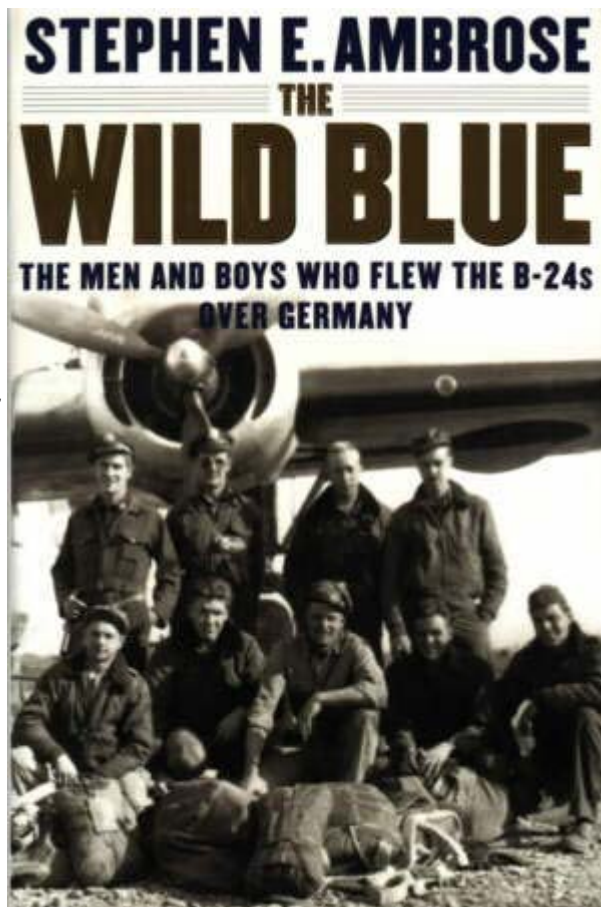
The crew is followed from civilian life through the end of the war. Ambrose is generally sympathetic to them. There is considerable treatment of the path that led to their ranks and assignments. Many wanted to be fighter pilots but if there were no openings or they washed out of training, they wanted to fly so badly that they went on as navigators, bombardiers, radio operators and so forth.

There is no doubt the missions were often extremely hazardous and often terrifying. There is little mention of crews not performing their missions. Few planes turned back without a good excuse. There were many instances of individuals staying on with their crews for the comradeship, and even a few cases where that resulted in their death.

McGovern is portrayed as a likeable, serious, relatively mature young man who is well respected and liked by his crew, who think he is competent, fair and reasonable. He is one of the few married or committed men in the crew. They used that as a reason to name the plane in honor of his wife, Eleanor, who was from South Dakota. In fact, they never repainted any nose art, they just used that term for whatever plane they flew, like an airliner uses a unique call sign that has no relationship to its tail number. McGovern talks of seeing a news clip that featured the destruction after the war of a plane with the name Yo-Yo, one of the planes he flew as *Dakota Queen*.

As you read the book, a few glitches come up but you get into the idea that this is more a story than a history book and you don't hold it against Ambrose too much. However, parts of the book read like it was patched together from a bunch of notes taken by different people. Ambrose is proven to have used that technique, going beyond what is considered fair by not quoting sources or attributing work by others.

War is brutal and there are many descriptions of horrific wounds and plane wrecks. Many times, one plane is hit and takes out one next to it. In one scene,



McGovern describes climbing out through a cloud deck where all visibility was lost, using the simple instruments of the day. Going up, he was on the left of a B-24. When they popped out on top, he was on the right. How they crossed without an accident boggles the mind and at the time made people realize how much chance was involved in getting home alive.

If you or anyone you know had anything to do with bomber missions out of Italy, I recommend this book as a good reminder of how much fun and how awful it was. As noted in the full title, this book is not about unescorted bomber sweeps against Berlin in 1943 where they faced myriad ME-109's. Rather, it is late in a different part of the war in Europe. Fighters are a deadly nuisance but not the threat earlier in the war. America was bringing on many top rate fighter planes. On the other hand, as the Reich is squeezed tighter and tighter, anti-aircraft defenses are consolidated around fewer and more vital targets. McGovern saw a lot more flak and not so many fighters as other bomber pilots saw at different times and places.

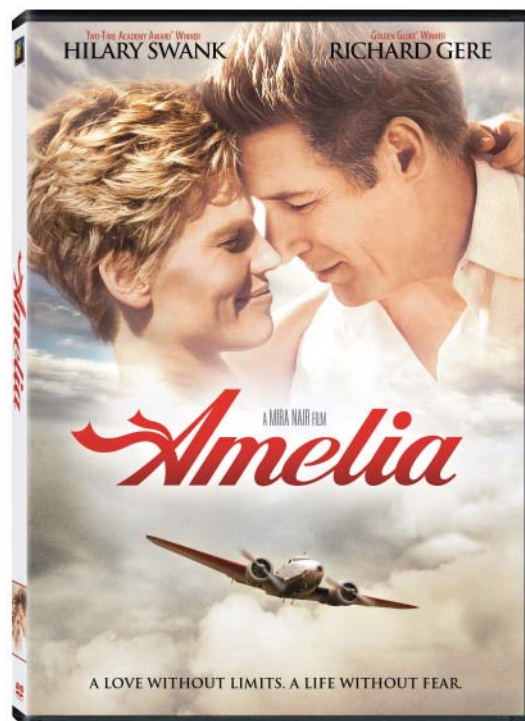
The B-24, built in much greater numbers and able to carry a much greater bomb load, seems to have lost out in the glamour war to the B-17 Flying Fortress. The B-24 is reported to be a heavy handling airplane and very hard work to fly. Young men - boys really - flew them for 8-10 hours at a stretch for days on end when the mission dictated and weather permitted. Many, many didn't come back. This book puts personality in the war and lets one empathize with what was asked and expected of 18-22 year old young men.

I wouldn't read this book trying to get every fact of the air war in Italy right, but it is worth your time for an interesting, entertaining (if you can be entertained by the grimness of war) and very human story. I don't think Ambrose is the greatest historian around. I wouldn't put him in the same room with Shelby Foote, for example, but what the heck. This book is about airplanes, young men and war and how can you not get your blood pumping? Go ahead and check it out of the library.

Last Meeting

For our March meeting, Jay & Mary Honeck of the Alexis Park Inn, invited our Chapter to join them for a movie night at the Inn. We lucked out since the movie "Amelia" had just become available on DVD. "Amelia" of course is based on the life and adventures of Amelia Earhart, a Kansas girl, who discovered the thrill of aviation at age 23, and within 12 years had progressed to winning the Distinguished Flying Cross for being the first woman to pilot a plane solo across the Atlantic Ocean. At age 39, she sets out to circumnavigate the globe, But I don't want to give away the ending of the movie, *just incase you don't already know.*

Many thanks to Jay & Mary for hosting the event and providing us with all manner of snacks and refreshments as well as giving us pre-movie access to the "Kiwi Flight Simulator"



Next Meeting

Our own Tim Busch will be presenting a FAAST Team Safety Seminar - Spring Tune-Up: Landings. This seminar counts as credit toward the FAA's **WINGS - Pilot Proficiency Program**. You can sign up at <https://www.faasafety.gov/WINGS/pppinfo/default.aspx> The meeting will be Saturday, March 13th at 10:00, at PSair at the Cedar Rapids Airport. Ramp space will be available for those who want to fly-in or maybe just taxi over.

EAA B17

George Daubner who coordinates the EAA B17 tour has found An opening for Chapter 33 on their calendar for July 20th (Tuesday) and 21st. This is the week before Oshkosh Air Venture. Basically, the B17 would fly-in on Monday and do flights and ground tours Tuesday, Wednesday and fly-off Thursday. We need volunteers, a couple to staff the Merchandise trailer (we get 15% of the sales). We would also need about 3 ground volunteers for getting people in and out of the place, etc. This is a good fund raising and promotional deal for our chapter and EAA. Please let Dave Miles know how and when you can volunteer. Also, on Monday there is a press flight and they like to have a WW II veteran if possible (a B17 crew member even better). I know we have one in our chapter or at lease some that know others.

Our Chapter will get \$30.00 per paid seat on the B17, 25% of ground tour revenues and 15% of Merchandise revenues. In the past this has been a great money maker for the chapter but even more that that an excellent way to introduce the public young and old to a historic airplane and to the veterans who flew these plane during WWII.

Membership Renewal Due

It is that time again. Dues are \$15/year, \$25 for 2 years, or \$35 for 3 years. Add \$10/year for paper newsletter (electronic newsletter delivery is free)

You can check your dues status on our Chapter website in the Members section. You need to login to see your status. Click the "Sign In" link at the top of the members page. Or use this link <http://www.eaa33.org/members/index.php?login=1>. Enter your last name and your EAA#, click "Login" then you can go to your name in the member list and check out your membership status at the bottom of your individual page. Don't worry only you can see your status. Also take a minute to check your address, phone# and email address and update them if needed.

If your membership is paid only thru 2009 then Please send your completed application for 2010 and check to: EAA Chapter 33, c/o Larry Wood, 140 Northwood Dr., Hiawatha, IA 52233. If you have any questions about your status you can contact Larry Wood 319-395-9348 or elwood140@aol.com

Fly Market

FOR FREE Shop Window Fan , free to a good home. It is 22" X 30", has a two speed fan that is reversible . It is ideal for a home workshop or paint booth. I also have a H frame assembly I used to build my RV-9A. Same price as the fan. Armin Jacobs, Monticello, IA Ph. 319-465-5298

FOR RENT Ed and I have an opening in the front of our hanger at KCID. A low wing plane with a 25' wingspan would be perfect. \$97.50 per month plus and estimated \$10 per month for electricity. No waiting tacaruth@dybb.com

Chapter 33 Calendar

Mar 9 7-9am Iowa Airports Breakfast on the Hill, State Capitol Building, Des Moines, Iowa. All IPAA members invited

Mar 13 10am Chapter Meeting & presented by Tim Busch FAASTeam Safety Seminar Topic: Landings Location: PS Air at Cedar Rapids Airport (CID)

Apr 10 Fly-in / Drive-in Breakfast Ames Municipal Airport Hosted by: ISU Flying Cyclones

Apr 11 Fly-in Breakfast Dubuque Regional Airport, University of Dubuque Flight Team

Apr 21-22 Iowa Aviation Conference, Sheraton West Des Moines Hotel, West Des Moines, Iowa For more information, visit iawings.com



RARE VIEW

A rarely seen picture of the inside
of an actual Can-o-Whoopass

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In The March 2010 Issue...

A Different Kind of Book, Easy Engine Pre-Heater, Wheel Balancing, The Wild Blue



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