

WINTERMAIL

EAA CHAPTER 25

MINNEAPOLIS / ST PAUL, MN

JANUARY 2009

1928 Boeing 40C



After an 18,000 hour restoration, over a period of eight years, [Addison Pemberton](#) has finally finished a dream.

Pemberton and Sons Aviation at Felts Field in Spokane, Washington has recently completed restoration of its 1928 Boeing 40C. The aircraft was test flown for the first time on February 17, 2008.

Along with 62 volunteers, he's rebuilt the only flyable Boeing

(Continued on page 3)

Photography Tips

by Peter Denny

G'Day everyone,

I thought I'd share with you photography buffs, a little about shooting aircraft with rotating props.

You all know what a shutter speed is; so I won't go into that. You also may know, a slow enough speed will result in the props creating a complete disc on your image, but it is often nice to know how many blades the prop has, and so the best results are often obtained when each blade *(Continued on page 5)*



Photo by Greg Cardinal of his Pietympol:
Approximately 1/250 sec and 1000 rpm.

Cleared for Takeoff
Jan Mtg, Msg from Tyler

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Koser's Comments



Having recently accepted the position of president of Chapter 25, I am grateful for all the supporting suggestions and advice. Transition should be smooth after the helpful assistance of Jon Cumpston regarding scheduling, contacts, and organizational advice. It's much appreciated.

For the next four months, our third Wednesday meetings include: January – Darrel Bolduc advising us about engine care, especially cold weather and spring changes, and

if he's back in MN, Dave Maib will talk with us about his flight testing process for his new RV-10.

February – We have an invitation from Pat and Mary Hoyt to come to their home and check out the progress of Pat's 601XL construction. They are offering to have a pot of chili on and inviting us to bring additional edibles.

March- The Chili Feed is scheduled for 7 March, with meeting plans to follow.

April—Hangar cleanup is the subject of this month, but meeting plans will follow.

The turnout for the invited visit to Buffalo Airport to join members of Chapter 878 in checking out the TMB Avenger torpedo bomber was not large, but Pat Halligan, Dan Carroll, and I, along with a local friend, enjoyed looking over this incredible airplane.

I'm looking forward to planning events for our meetings, including: a plans night where members bring their aircraft plans for all to see and discuss, Dr. Phillip Sidell coming to speak to us and answer questions concerning airman medicals, a Light Sport emphasis with a local CFI bringing one of the CTs from our local FBO, and more sessions to be announced.

Let's have a super year with some goals that could include some or all of the following:

- ◇ new sign on the south side of the Bert Sisler Education Center (in process – thank you Jon),
- ◇ a major hangar cleanup and insulation of the walls,
- ◇ a successful fund raiser,
- ◇ increasing support of young people with scholarship funds to attend the EAA Air Academy,
- ◇ flying 300 Young Eagles in 2009,
- ◇ a possible bus trip to Duluth to tour the Cirrus factory,
- ◇ your ideas??

John



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The Leader In Recreational Aviation

This Month: Wed Jan 21st—Chapter Hangar—6 pm

Grill on at 6pm, Meeting starts at 7pm

Bring something to grill and something to share

Program: Darrel Bolduc will advise us about engine care, especially cold weather and spring changes, and if he's back in MN, Dave Maib will talk with us about his flight testing process for his new RV-10.

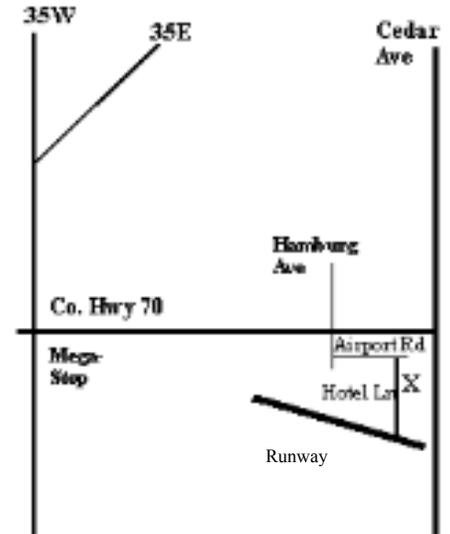
Sat Jan 17th—Young Eagles at Airlake 9am

Contact Bill Brown for more info.

Sat Mar 7th—Annual Chili Feed, Chapter Hangar-11am

Bring your best chili to share-crackers, cheese etc too.

Directions to Chapter Hangar at Airlake: South on I-35 to Hwy 70 (Megastop), then East to Hamburg Ave (3rd stop sign.) Right turn and South to airport perimeter road. Left on airport perimeter road then right on Hotel or India Lane. Please park on grass/snow between hangars.



1928 Boeing 40C (from page 1)

model 40 in existence. And it's officially the oldest Boeing still flying, having been built in 1928.

This is as it should be - passengers in a closed cabin, pilot in open cockpit so he will stay awake. The airplane is in Spokane, WA and is the oldest flying Boeing in the World.

After 8 years of repair and rebuilding and 8,000 hours of toil the Boeing 40C rolled out last winter as a finished airplane. They had to wait a few weeks for the snow to melt to fly this baby. They received their Standard Airworthiness Certificate from the FAA and completed the engine pre-oil and fuel flow tests for the first of the taxi tests.

Facts for the Boeing 40 project:

221½ gallons of dope/reducer and 120 yards of 102 ceconite fabric. 12 gallons of poly urethane paint for the sheet metal. The wings have 33,000 individual parts in them. The airplane weighs 4080 lbs empty, has a gross weight of 6075 lbs. It is 34 ft long and 13 feet tall with a wing span of 44½ feet.

Wing loading is 10 lbs per sq ft and power loading is 10 pounds per HP. It should cruise at 115 mph using 28 GPH, and 32 GPH at 120 mph. It carries 120 gallons of fuel in three tanks.

350 - 2 inch brushes were used to apply 6 gallons of West Systems epoxy, and 181 rolls of paper towels for cleanup.

There were a total of 62 volunteers who worked on the project to some degree. 21 of the volunteers did a significant amount of work, and 9 of the volunteers worked continuously during the 8 year project.



Message from Tyler

To Chapter 25,

My enlistment with the Navy will be up in July and as it looks now I will be coming back to the Minneapolis area. Since I left for the Navy in 2005 I have picked up my private certificate, 130hrs of flight time, and I have my IFR checkride very soon. I am just curious if anyone knows of any cheap flying clubs in the area. I am pretty interested in N25WF out at KMIC if there are any shares available. If anyone knows of anything, I would love to hear about it.

**AE2(AW) Ty Sibley
United States Navy NAS Brunswick Maine**



Christmas Party at Dan's Hangar

Thanks to Dan Carroll for hosting a great Christmas party this year. We had a good crowd in spite of the cold winds and winter driving conditions.

Everyone got a chance to inspect Dan's new aircraft, a Rans Courier. It is an absolutely mint aircraft—what a beauty!



Photography Tips *(From page 1)*

is discernible, but blurred. Take a three-bladed prop, for example. If it is moving at 2000 RPM a shutter speed of 1/250th will allow each blade to move through an angle of approximately 48 degrees, which will look quite attractive. Moving up one speed, to 1/500th, will give a blurring of only 24 degrees, which will start to look a little weedy.

Propellers might look as though they are moving fast, but the camera knows different. Speeds of 1/1000th or faster are capable of freezing the blades completely, while even 1/500th will often reduce them to spindly-looking sticks. The bottom line is, you really need a reasonable amount of blur for props to look attractive; aim for 48 degrees.

Photographing Aircraft at an airshow like Oshkosh.

The easiest mistake to make when photographing an airshow is to underexpose your photos. This happens when you allow your camera to choose all of the exposure settings - auto mode.

Since planes are up in the sky, and the sky is very bright, when it's not raining at Oshkosh, the camera will choose an aperture which is too small, or a shutter speed which is too fast, and you end up with the sky properly exposed and the aircraft underexposed. Why?

Because the dumb camera takes the reading from all it sees! It doesn't know you only want to photograph the aeroplane.

There are several solutions to this problem:

(1) If you have the capability, put the camera into **spot metering mode** so it takes more account of the aircraft and less of the sky. Theoretically this is a very good solution, but in practice it's often impossible to keep the center of the frame exactly on an aircraft, because it moves around so quickly. Often you don't even want the subject in the center of the frame - if two aircraft are flying in formation then the center of the frame might be empty sky, so you're back to the original problem where the camera is exposing the photo for the sky. Using spot metering also doesn't work too well if the aircraft has a color scheme with contrasting light and dark areas.

(2) Put the camera into **full manual mode**, where you set both the shutter speed and the aperture. After you've set the shutter speed, **you can then determine the appropriate aperture by pointing the camera at something of about the same darkness or brightness as the plane you want to photograph.** Green grass is usually the equivalent of "18% grey" the industry standard "correct" exposure, so point the camera at the grass and use your camera's built-in lightmeter to adjust the aperture until the camera says you're at the right setting; you may need to practice this.

There are several problems with using full manual mode. On a day with scattered clouds the light changes frequently, depending on whether the subject is in a sunny spot or a shady spot; when the subject is a fast-moving aircraft, this problem is especially bad. If you don't point towards grass which is in the same direction as the planes you're photographing, then the sun will be striking the grass and the planes from different angles, and so the aperture won't be correct for both of them.

Even on a cloudless day the light changes through the course of the day, so you need to recalibrate your aperture periodically, however even this won't help completely, because the amount of light changes significantly as you pan with the aircraft from one part of the sky to another. Some planes are darker than grass and some are brighter, so you'll have to adjust your settings from plane to plane. Since the shutter speed you use probably depends on whether the subject is a jet or a propeller driven plane, and don't forget what I said about rotating propellers! you'll also need to make adjustments for that.

(3) Put the camera into **shutter priority mode**, where you set the shutter speed and the camera selects the aperture. If you take this approach then you also need to use **exposure compensation**, otherwise you're no better off than when you started. Exposure compensation means telling the camera to let more light in than it normally would, or less light than it normally would. To cure the problem of underexposed aircraft, we need to tell the camera to let more light in than normal. Usually this means telling the camera to compensate by "+1 stop", which means allowing in twice the amount of light that the camera would otherwise have chosen. I'll cover this issue next time. If the aircraft you're photographing is white or silver then you might need to dial in minus half a stop of exposure compensation, but if it's very dark then you might want to add one and a half stops. Don't compensate much more than this, because you don't want a black plane and a silver plane to both turn out 18% grey - the black plane *should* look dark and the silver plane *should* look bright!

Peter



Photo by Kris Olson at Log Cabin Airport
September 2, 2007

MAHOF Aviation Scholarship Announcement

The *Minnesota Aviation Hall of Fame (MAHoF)* is pleased to announce the availability of two (2) scholarships to be awarded on May 2, 2009, at the 20th Annual MAHoF Induction Banquet. These scholarships will be awarded to individuals who are pursuing a career in the aviation industry. Each scholarship is \$500.

One scholarship will be awarded to an individual who will be graduating from high school in the Spring of 2009, or to an individual who is currently enrolled in a post-secondary aviation related program--i.e. college aviation program, flight training, aviation technical school, flight dispatcher school, et.al.

The second scholarship can be awarded to an individual who is enrolled in an aviation education class, or flight training, and who is still in secondary school.

Application Process

Please provide the following information on a separate sheet of paper (8-1/2 x 11): 1) Your full name, 2) Your current address, 3) Your telephone number, 4) The school or college that you are currently attending *and* the grade level. 5) Indicate the aviation related classes or flight training taken to date, 6) Parents/Guardians name(s), address, and telephone number(s), *and* 7) A brief statement (50 words or less) stating your aviation related goals and/or career objectives.

On a second sheet of paper please prepare and write an essay (250 to 300 words) in response to one of the following statements or questions:

- 1] The most significant changes that will occur in aviation during the next fifty years
- 2] The major challenges facing the aviation industry as we know it today
- 3] Why is aviation important to our country and our economy?
- 4] What is it about flying/aviation that appeals to you?

Please submit and mail your completed application to:

Timothy Barzen
MAHoF Scholarship Committee
5780 Lincoln Drive #105
Edina, MN 55435

Please Note: All applications must be received at the above address on or before February 28, 2009, in order to be considered. All applications should be presented on 8-1/2 x 11 paper and preferably typed. Applications will not be returned and are the property of MAHoF. Winners will be notified by March 15, 2009. Scholarships will be presented on May 2, 2009, at the MAHoF Banquet.

FAA WINGS Safety Seminar

"The Pilot and the Chart Maker, VFR Charts from the Expert, Don't Miss This Program!"

Topic: Aeronautical charts and products for all.

Presented by the Chart Wizard from Washington, D.C, Mr. Richard Neher.

On Monday, January 19, 2009 at 7:00 PM

Location: Thunderbird Aviation, 14091 Pioneer Trail, Eden Prairie, MN 55347

Select Number: GL1521623

Description:

This dynamic, entertaining and educational program is presented by the premiere cartographer himself, Richard Neher, from the Aeronautical Charting Office in Washington, D.C. Whether you use paper charts, GPS, MFD or EFB after this program you will look down at the earth in a whole new way.

To view further details and registration information for this event, [click here](#).

The sponsor for this event is: **FAASafety Team - Minnesota**

The following credit(s) are available for the WINGS/AMT Programs:

KEB 1.00

Stuff for Sale/Wanted

For Sale: DRDT-2 Rivet Dimpler and table, all for \$275. Dimpler alone is \$355 new. Other tools & equipment too. Moving to Florida, must sell asap. David Maib [dmaib@mac.com] 612-202-6309

For Sale: 1948 Beech Bonanza 35. T.T.A.C. 2980, Engine 22 SMOH. Prop & all Accessories 22 since overhaul. New paint & leather interior. Tip tanks, dual controls, all new windows, cleveland brakes. Many mods. VFR radios. At KLVN. Asking \$48,000. Al Morphew 952-985-5910 612-961-1546

For Sale: 1973 Cessna 150L TTAF 3300, 700 SMOH. White w/blue stripe. Exterior 8/10, interior 8/10. Michael single Nav/Com radio, ModeC Xpndr. Fresh annual. Portable GPS included. \$18,000 firm, similar in trade-a-plane for 23-24. Gerald Mercier, gjmerci@aol.com 612/861-6921.

For Sale: 40' x44' hangar 32G at Airlake Airport. A/C building tools, many misc. parts. A/C oil & filter, welder/tanks, 1968 Cardinal wings & tail feathers. Call Phil & Betty Funk at 612-578-3017 for viewing.

For Sale: Hangar #30, 48'x50'—Winsted Municipal Airport 10D-40' Electric Bi-Fold door; Concrete floor; Mercury Vapor lighting; 11' x 13' Garage door. 320/834-2824 be35_33_captn@hotmail.com

For Sale: ICON IC-A23 VHF Airband Transceiver still in box never used. \$275. Peter Denny 763/529-5325

For Rent: Heated hangar space at KMIC. Space has good lighting and use of microwave, refrigerator, bathroom, lounge, and hot/cold running water. Rent dependent on type of A/C or use. Space comes with resident AP, IA, EAA technical counselor, and A/C welder. Call 763-494-6993 evenings.

Wanted: I am working almost daily on my Fisher project. Down the road I will need some instruments. This will be a VFR setup. Engine will be a Subaru. Let me know if you have something I might be able to use. Contact philschaffer@usfamily.net

For Sale: RV-6/6A project in Burnsville—pre-punched empennage and wing kits are complete. Right wing is jigged with the skeleton and main skins clecoed in place. All parts primed. Includes elec trim, wing Indg lts and AOA kit. \$5000 for all, but am on furlough from Mesaba and willing to negotiate. Chad Tarara ctarara@comcast.net 952-956-4614

For Sale: Homebuilt two place tandem. open cockpit, hi wing, 64TT, Eng. 0235C 1035TT Plane garaged 10 yrs Bldr deceased.

Starduster II fuselage & empennage

Amphibian, single place hull/fuselage modified Cub wings

Alum 6061T6 tubing 1.175"OD, .025 wall, 12 1/2' long, about 60 lengths

6 RC models, gas & electric engines, controls etc.

Pair of J-3 ailerons, J-3 fin, motor mount, pair of skis, radio, Lyc o'haul man.

PRICES ARE NEGOTIABLE-Make an offer!

Vivian Christianson vivchristi@gmail.com 763-559-2783

Interesting Facts from Norm Tesmar

1. The average number of people airborne over the U.S. in any given hour: **61,000**
2. The cost of raising a medium-size dog to the age of eleven: **\$ 16,400**
3. Every day more money is printed for Monopoly than the U.S. Treasury

(Actually, #3 is no longer true)



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Chapter Events and Fly-Ins

Jan 21st 6pm Chapter Meeting
Chapter Hangar Airlake (see p. 3)

Jan 17th 9am Young Eagles (Airlake)
Cancelled-see Bill Brown for current info.

Mar 7 Annual Chili Feed 11a-2p
Chapter Hangar Airlake

Future meetings 2/18, 3/18, 4/15, 5/20,
6/17, 7/15, 8/19, 9/16, 10/21, 11/18, 12/16, 1/20

Jan 19 Eden Prairie Mn (FCM) 7p
FAA Safety Seminar at
Thunderbird Aviation "The Pilot &
The Chartmaker", must preregister
with Gary 612/713-4244

**Jan 24 White Bear Lk, Mn 6MN9
11a-2p** Benson Airport Chili Feed
Unicom 122.7 Kim: 763-503-0161
Airport Phone: 651-429-0315
bensonairport@yahoo.com

Jan 25 Mondovi Wi (WS69) 10a-?
Ski Fly-in, lunch at noon.
Doug Ward 715/287-4205

Feb 7 Brodhead Wi C37 11a-2p
Groundhog Chili Fly-in
www.eaa431.org

Mar 7 Wisc. Rapids
UL & Sport Pilot Safety Seminar
Hotel Mead Conf Ctr 715/536-8828

Mar 16-17, 2009 St. Paul, Mn
Minnesota Aviation Maintenance
Technician Conference,
Crowne Plaza St. Paul River-

front, www.dot.state.mn.us/
aero, 800/657-3922, ext. 7181.

May 2 2009 Bloomington Mn Min-
nesota Aviation Hall of Fame.
Ramada Hotel (old Thunder-
bird). Reservations will be
available starting in January. If
you want your name added to
the reservation mailing list,
send an e-mail message with
your name and address to:
nallard@unitelc.com.
Make sure the subject line reads
"Hall of Fame Mailing."

June 21-27 Duluth Mn (KDYT)
41st annual Cessna 170 Assoc.
Sky Harbor Airport.

July 18-19 Eden Prairie Mn (FCM)
MN Air Expo, www.wotn.org

July 27-Aug 2 2009 Oshkosh Wi
Airventure 2009

Aug 9 Walker Mn (Y49) 730-1230
CAP pancake bkfst 218/652-2700



From John Koser
*TBM Avenger Tor-
pedo Bomber at
Buffalo Airport
(1-10-2009) Pat,
Dan, and I along
with a local friend
drove to Buffalo
today to see this one.
(I think Pat wants to
fly it.)*



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