

CHAPTER 55 EXPERIMENTAL AIRCRAFT ASSOCIATION

NOVEMBER 2013

Meetings are the 2nd Saturday of each Month

EAA Chapter 55 Hangar-Mason Jewett Airport-643 Aviation Drive, PO Box 443, Mason, MI 48854

Pres: Ken Vandenbelt 589-5051 Vice Pres: Joe Madziar 676-4341 Treas: Al Spalding 676-3370

Secr: Jack Voss 708-7079 Editor: Warren Miller 214-2656 (all Area Code 517) www.EAA55.org



Climb and Maintain Flight Level 55

Hello Members - Fall has arrived! The corn has been cut and we once again have a panoramic view of the airport from Kipp Road !

Have you received your November 2013 copy of *Sport Aviation*? Of interest is a particular article on Page 118. Check it out.

**Board of Directors Meeting
November 6, 2013, 7:00 pm
Chapter Membership Meeting
November 9, 2013
Breakfast 8-9 Meeting 9:30 am**

This month's program will be a (very short) road trip

down Aviation Drive to the recently opened LCC Aviation Maintenance Technology Center. Mark Cosgrove and Mary Dougherty have extended an invitation to our group to come and check out their remodeled building and see what their program has to offer.

Hope to see you Saturday,
Ken Vandenbelt

NOTICE: Our meeting room is now in **WINTER MODE**. This means heaters have been turned on in the bathroom and under the kitchen sink to keep pipes from freezing. Be sure that the **BATHROOM** and **STORAGE ROOM** doors are latched **CLOSED** and that the **kitchen cupboard door** is kept **CLOSED** at all times.

THE EAA MISSION: To grow participation in aviation, by inspiring people to fly, build, volunteer and outreach to promote aviation.



October Breakfast Team: Terry Lutz & Doug Koons

BREAKFAST TEAMS

| <u>November</u> | <u>December</u> |
|-------------------|-------------------|
| Tom Botsford | Dave Courey |
| Kyle Curtiss | Grant Dowell |
| Ken Drewyor | Brian Eakin |
| J. Morris Hickman | Cliff Hale |
| Karen Meirndorf | Max Hall |
| Dick Riisberg | Dan Schiffer |
| John Vandermolten | Margaret Schiffer |
| Bruce VanFarowe | |
| Joe Whitesides | |

EAA Chapter 55 Board of Directors Meeting October 9, 2013

→Present: Ken Vandenbelt, Joe Madziar, Al Spalding, Bill Purosky, Steve Houghton, Dave James, Warren Miller, Vickie Vandenbelt. Absent: Jack Voss, Ed Search, Jim Spry. Guest: Margie Clark. →Meeting called to order at 7:08pm. →Secretary's Report dated 9/11/13; Joe Madziar moved; Vickie Vandenbelt supported; approved. →Treasurers Report dated 9/30/13; Dave James moved; Bill Purosky supported; approved. →Membership: Vickie Vandenbelt reported two new members. →Nominating Committee: Steve Houghton reported nominations so far with Steve Houghton for President; Margie Clark for Vice-President; Vickie Vandenbelt for Secretary and Treasurer yet to be found. →Discussed team to go to the Teachers Aerospace /Aviation Workshop. →Newberry Aviation Scholarship discussion and decision to fund \$800+/- for a

pilot and two \$500 scholarships for students in LCC maintenance technology. →Discussion of award calendars for volunteers; tabled for next meeting. →Steve Houghton & Terry Lutz will canvas members about prop balancing. Joe Madziar moved; Bill Purosky supported; meeting adjourned at 8:25pm. →Respectfully submitted, Vickie Vandenbelt, Acting Secretary.

EAA Chapter 55 Membership Meeting October 12, 2013

→Called to order at 09:20am. →Following the National Anthem, big "Thank you!" to the breakfast team and next month's breakfast team announced. →Secretary's report for 9/14/13 accepted as published in the newsletter. Treasurer's report dated 9/30/13 was accepted. →Nominating Committee; Steve Houghton reported he will be running for president, Margie Clark for Vice-President, Vickie Vandenbelt for Secretary, and the position of Treasurer is still open. →Phil Tartalone reported that we flew 260 Young Eagles (YE) this year, total to date 3,188. →Announcements: Margaret Schiffer soloed on 9/17/13; Grant Dowel soloed on 9/25/13; Terry Lutz was made a Fellow of the Society of Experimental Test Pilots; Ernie Lutz received the Legion d'Honneur from France. Paula Corsi announced about Good Cheer gifts for kids who are wards of the state. Looking for volunteers to deliver gifts 12/6 & 12/7. →EAA55 is looking for someone to transfer some VHS tapes over to DVD. →Please donate any old issues of aviation magazines to our Chapter. We distribute them at our events. →Terry Lutz announced about getting props balanced and mags timed. He could arrange for a mechanic to come to the field if we gather enough plane owners who would purchase this service. →Bill Purosky announced about the Great Lakes Aviation Conference at the Lansing Center. → Meeting adjourned at 10:05am. →Respectfully submitted, Jack Voss



TIDBITS By Vickie Vandenbelt

MEMBERSHIP DUES: Hard to believe - but it is that time of year to be thinking about paying dues for 2015. Treasurer Al would be happy to accept your payment at any time.

MESSAGE FROM KYLE CURTISS: I wanted to let you guys know I have officially graduated from Western Michigan University's flight program and I would personally like to thank everyone from the EAA for their support in helping me complete my training at Western. (Kyle was a Newberry Aviation Scholarship recipient.) I graduated with a commercial multi engine and single engine land pilot's certificate, as well as an advanced ground instructor and flight instructor certificate. I still plan on being around Mason helping out with EAA55 events but I wanted to inform you guys that your help has not gone unnoticed. And, I would be more than grateful to offer my services for anyone needing a flight instructor. I will charge a lower rate for anyone who is a member of our chapter

because of all the support you guys gave me during my training. Kyle

LOST & FOUND: We have a collection of coats that have been left behind in recent months and a box of odds and ends. Are you missing anything?

OPERATION GOOD CHEER: Pilots needed to fly gifts from Pontiac to various Michigan destinations on Dec 6th & 7th. Contact Alison Ross; Child & Family Services of Michigan; 517-349-6226 if interested in volunteering.

MASON VETERANS PARADE: If you are in Mason on Monday, November 11th - be sure to check out the parade - stepping off from the fairgrounds at 3:00pm; proceeding around the courthouse with a return to the fairgrounds.

MASON SESQUICENTENNIAL: Everyone is invited to help with the 150th birthday celebration in 2015. Planning meetings are held on the second Tuesday of each month; 6:30pm; in the upstairs training room in City Hall.

WEBSITE: A few people have sent me this link to a great collection of aviation & military info. <http://acepilots.com/>

FUEL PRICING EXPERIMENT AT \$1.00/GALLON: Interesting .. <http://www.avweb.com/avwebflash/news/Redbird-Cheap-Gas-Experiment-A-Lasting-Effect220894-1.html>

HOW AVIATION IMPACTS HIGH SCHOOL STUDENTS: from the blog of Jamie Beckett: <http://blog.aopa.org/opinionleaders/category/authors/jamie-beckett/>



YOUNG EAGLES By Phil Tartalone

No report for November.



NOTES FROM CAPE JUBY By Terry L. Lutz Chapter 55 Flight Advisor

Many of you are aware that I have been working with pilots and engineers from Boeing over the past two years to prepare a briefing about how we accomplish stall testing on large transport aircraft. This may seem surprising, since Airbus and Boeing are strong competitors in the marketplace. Flight test safety is one area where we have no competitive interest, and we are able to share information so there is no catastrophe when we are out there on the edge of the flight envelope.

I was approached two years ago by Paul Bolds-Moorehead and Van Chaney of Boeing about doing a joint presentation on a flight test subject of common interest. That single contact resulted in an extraordinary development – we are now holding flight test safety conferences involving all the

major manufacturers. We can openly share information about events that have occurred during flight testing, so that similar events are not repeated, and to develop new flight test techniques.

A good example is the open sharing of information from Gulfstream, following the G650 accident in Roswell, NM. Four good men were killed in that accident, including Kent Crenshaw, one of my classmates at the USAF Test Pilot School.

It took about six months to find a topic of common interest between Airbus and Boeing, which turned out to be stall testing. Then with a full year to go to our target (the 2013 Symposium of the Society of Experimental Test Pilots in September), we established a phone call each Wednesday at 1800 in Toulouse, which with the time difference was 0900 in Seattle. With these phone calls, we designed the presentation, refined it, and wrote the technical paper. Our first opportunity to present it was in London to members of the Royal Aeronautical Society.

If there is interest, I can provide this presentation to Chapter 55 and other chapters around Michigan. I know that you will all enjoy it, including some of the videos of big airplanes doing stalls.

We gave this presentation last week in Ft. Worth, Texas to a joint meeting of the Society of Flight Test Engineers (SFTE) and the Society of Experimental Test Pilots (SETP).

Like all such meetings, there were a lot of interesting papers presented. As a test pilot of manned aircraft, my observation was that the majority of experimental work today is in the field of gizmos that fly, but without a human pilot. Everyone seems to be doing their own thing, and they can't even agree on what to call those gizmos that fly. Some people call them Unmanned Aerial Vehicles (UAVs), the Air Force now calls them Remotely Piloted Aircraft (RPAs), and others are saying Unmanned Aerial Systems (UASs). They are further broken down by mission, and whether the operator has a stick for control, or just pushes buttons.

There was one presentation about the prototype fly-off competition between the YF-22 designed by Lockheed-Martin, and the YF-23 designed by Northrop-Grumman. This led to the development of the F-22, a marvelous twin-tailed thrust-vectoring fighter. The competition was won by Lockheed-Martin largely because their test team expanded the flight envelope beyond the fly-off requirements, to include flight up to 80 degrees angle of attack, and speed out to Mach 2.0. The Northrop-Grumman guy said that the YF-23 would have proven to be a better airplane, had they matched the envelope expansion of the YF-22. Then it was mentioned that sometimes emotion plays an important role in aircraft selection.

If you look at the following view of contrails, you will see the YF-16 turning inside an F-4 Phantom.



Many people feel that this photograph was why the YF-16 was selected over the YF-17 (which eventually became the F-18).

While in Ft. Worth, I took the time to visit my friend David Perry, who over a 20-year period managed to complete and fly a beautiful Vari-Eze. Looking back at the

visits I made to his garage-turned-workshop, I think he was the inspiration for me to move ahead and someday build an airplane. David was helped a good deal by another builder named Bill James.

Bill has also built a Vari-Eze, but his is really special. I have followed his progress for several years as he has modified and improved his airplane, eventually squeezing another 20 mph out of it. Part of his success is attributed to the changes he has made under the cowl. If you look at the Vari-Eze design, you'll note that Burt Rutan designed it to have updraft cooling. Air comes in beneath the cowl, passes up and over the cylinders, and exits out the aft opening in the cowl (along with air from the exhaust pipes).



Basically, what Bill has done is change the cooling design from updraft to down-draft. However, to get maximum performance from the airplane, he has further modified the path of the cooling air. Inlet air is forced through ducts made of carbon fiber, covering both the cylinder heads, and the cylinder barrels. It is a well-sealed fit, including openings for the valve pushrods and ignition wires. Everything is held in place with hinge pins, which can be pulled out for easy removal of the ducts. It is actually a better means of cooling than a plenum covering the entire engine.

Going fast also means reducing weight. To reduce the engine weight, Bill created his own oil sump from carbon fiber, giving it strength with longitudinal ridges, and reducing a bit the oil quantity it will carry. For those of you familiar with Lycoming engines, the carburetor is normally on the bottom, and the fuel/oil mixture flows up into a spider inside the original sump, with additional tubes extending out to the cylinder heads.

Bill's oil sump is sealed and is just that: an oil sump. So where is the carburetor? Look closely at the picture and you will see the carburetor to the left of where the crankshaft extends from the engine. Then look closely again and you'll note that the fuel/air mixture flows in a tube that goes up and over the crankshaft, then down to a spider, where individual tubes carry it to the cylinders. This set-up is low drag, lightweight, and less susceptible to carburetor icing.

The final piece of the design really makes sense. Cooling air is taken off the engine and ducted through augments tubes containing the exhaust pipes. The augments tubes accelerate the cooling air, which reduces drag, lowers temperatures, and actually provides a little thrust. It took Bill several tries to get the angle exactly right. So enjoy this picture, and think about what it takes to be a true experimenter!

Well, the time changed and it's getting darker earlier. So, we have to go flying in the morning! And when you're at the airport tinkering or pre-heating, there is likely someone around that needs a hand. You've got two, so there's one to give.

WWII VETERAN



Ernie Lutz of Mason and a long time Chapter 55 member was honored recently by receiving the French Legion of Honor Medal for his service in the United States Army Air Corps. Ernie, now 92 years young, was surprised to receive this metal after flying missions as far back as 1944. Ernie flew a B-26 bomber during the time of The Battle of the Bulge and D-Day.

Ernie still flies and goes aloft every June 6th to commemorate D-Day.

WOODEN AIRCRAFT EXPERT



Margaret & Kyle Bradford

Mr. and Mrs. Bradford came to breakfast last month. They haven't been to a Chapter meeting together for some time. Kyle and Margaret live on some farm acreage near Eaton Rapids which includes a nice grass air strip.

Kyle, a retired airlines captain, loves to build Pietenpol airplanes. They include a couple of Aircampers, a Scout and the most recent, a 2 place, side by side. Kyle said this last plane is rare in the Pietenpol community as it is the second one ever built and the only one flying today. He said he applied for and received the original N number from the first plane. Kyle said his plane fly's and handles great and he enjoys it more with each flight.

Anyone flying over The Bradford's place, do drop in for a smooth landing and visit for a while. Kyle likes to show off his handy work and talk airplane stuff.

**Chapter 55
Table at the
Teachers
Aviation/
Aerospace
Workshop**



FROM THE FLIGHT SURGEON By Gregory Pinnell, MD

One of the most frustrating issues we run into with FAA aeromedical certification is the topic of what medications are allowed and which are not. And there is no more confusing area we deal with than diabetic medications.

It sometimes seems like one medication is allowed with another medication but not another. And that combination may be ok only during certain phases of the moon (just kidding!)

But seriously the FAA appears to be going to allow additional medications for treatment of diabetes. But we are waiting for them to come up with a relatively simple way of being able to tell which combinations are allowed.

So, if you have been on a medication for diabetes that is not allowed by the FAA stay tuned as we anticipate new policy coming out of Oklahoma City.

Fly safe!

Gregory Pinnell, MD
Senior AME/ Senior Flight Surgeon USAFR
www.airdocs.net

Aviation Humor

Lady, you want me to answer if this old airplane is safe enough to fly?

Just how in the world do you think it got this old!?

Maybe the same could be said for Old Pilots!

CHAPTER 55 CLASSIFIEDS

EAA55 Builders Hangar: one space; Ken 517-589-5051

LOST & FOUND: Coats & other odds and ends left in the meeting room.

WANTED:

Inside storage space with concrete floor for a 38' Alpine Motor Coach which is 12'6" high. Needed Nov.-May. Call Jim Blair 517-487-0059

Someone to transfer our EAA Chapter 55 VHS tapes to DVDs.

Serviceable ELT, model AK 450, 121.5 megahertz, with accessories. Kyle Bradford 517-663-3083

Your unwanted AVIATION MAGAZINES of all types and years (for our FREE INFO table at events).

FREE: Hanging folders for file cabinets.

FOR SALE:

Books for Sale: at the hangar.

Steak Sauce; only three left; \$3.00 a bottle; pay EAA snacks.

Pietenpol Air Camper Light Sport, 248 Hours - \$6,000 Kyle Bradford, 517-663-3083

Chevrolet Corvair 100-HP flight motor conversion; nearly complete, unassembled. \$5,000/negotiable. Greg Harris 517-775-4563 or gkharris1974@gmail.com

Zenith Zodiac XL/650 Corvair motor mount; Greg Harris 517-775-4563 or gkharris1974@gmail.com

Honey; Gordon Hempstone 517-515-1454

DTV analog or digital antenna; \$25.00
George Moore 517-536-1034

New surplus hardware available & Stearman rides; Yesteryear Aviation 517-676-4416

Contact Warren or Vickie to place your ad here!

POCKET CALENDAR

Dec 14 = Christmas Party; Trippers; 1800
Feb 14-15 = Great Lakes Aviation Conf

WINGTIPS is published monthly by *EAA Chapter 55 of Mason, Michigan*, for the use, education and enjoyment of Chapter members and supporters. Accurate information transfer is our goal; however readers should verify dates and times prior to attending an event.

DEADLINE FOR SUBMISSIONS is the last Saturday of the month. The Editor reserves the right to edit all submitted material. Photos, sketches or artwork sent by email must be in JPEG or BMP format. Text must be in a Word format or copyable from the email. Submissions may be sent by regular mail and must be accompanied by prepaid postage if you want them returned. Submissions should be sent to: Warren Miller, Newsletter Editor.

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