

CHAPTER 55 EXPERIMENTAL AIRCRAFT ASSOCIATION

JANUARY 2014

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: Steve Houghton; 290-7528 →Vice Pres: Margie Clark; 853-1418 →Treas: Al Spalding; 676-3370

→Secr: Vickie Vandenbelt; 589-5051 →Editor: Warren Miller; 517-214-2656 (all Area Code 517)

www.EAA55.org



Climb and Maintain Flight Level 55

Welcome to 2014! So far the new year is shaping up to be a great year for flying (just kidding as I shovel out my driveway for the 10th time). As we start the new year we need to acknowledge that 2014 will mark the 55th anniversary of Chapter 55! We will be planning several events to commemorate this milestone. The first EAA "Chapter" gathering was held in 1953, at Flabob Airport in Riverside, CA. Today, there are nearly 1,000 active local EAA and divisional Chapters and Squadrons all over the world. Founded in 1959, our chapter is one of the older chapters. Look for more information on the history of our chapter in upcoming newsletters.

While we can be proud of the 55 year heritage of our chapter, one of the biggest concerns about aviation organizations is declining membership. We are all aware of the pending shortage of pilots. This includes not only ATP rated pilots, but all classifications and levels of pilots. Our numbers are declining. And let's face it, flying is not a cheap hobby. At a chapter level, there are several things we can do to help sustain and grow our chapter. I would like to see us become more active at growing our chapter by reaching out not only to pilots, but to those in the community who simply have a love of aviation. I would also like to see us do more flying. There are many members in our chapter and the community who would jump at the chance for a flight. Look for more opportunities to experience the joy of flight in 2014!

I would like to extend my thanks to Ken Vandenbelt for his four years of service. He and his staff (i.e. Vickie) provided me with a well-run organization to assume leadership of. For those of you who don't know me well, I have been in the chapter since 2003. I got my pilot's license in 1982 but did not fly again until 2001 when I regained my currency through renting a 172 through Aerogenesis. I eventually joined Spartan Wings and became a Chapter 55 member. I have regularly attended Oshkosh. After observing Terry Lutz and Jim Spry build their RVs, I decided to take the homebuilding plunge in 2007, completing my RV7a in 2012. I look forward to serving this great chapter. Keep warm!

Steve Houghton, President (steve@eaa55.org)

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



December Breakfast Team: Dan Schiffer, Grant Dowell and Dave Courey

BREAKFAST TEAMS

| <u>January</u> | <u>February</u> |
|----------------|-----------------|
| Kyle Bradford | Lynn Brown |
| Lloyd Brown | Joe Madziar |
| John Caron | Mike Franzago |
| Gary Nicola | Dave Groh |
| Pat Salow | Greg Hover |
| Karen Salow | Karen Hover |
| Judy Search | Joe Pirch |
| | Tom Schroeder |

EAA Chapter 55 Board of Directors Meeting December 11, 2013

→ Meeting called to order at 7:05pm. → Present: Ken Vandenberg, Joe Madziar, Al Spalding, Jack Voss, Vickie Vandenberg, Jim Spry, Warren Miller, Steve Houghton, and Dave James. Absent: Bill Purosky, Ed Search. Guests: Margie Clark, Bob Clark, Doug Koons. → Madziar moved, James supported, motion passed to accept Secretary's report for 11/6/13 as printed in the newsletter. → Treasurers report dated 11/30/13; Voss moved to accept; James supported; and motion passed. → Looking for a new program coordinator – volunteers, please step forward. → 55th anniversary ideas; maybe Ides of March? Maybe Cinco de Mayo? → Newberry Aviation Scholarship; there are no selections for this year. → Margie Clark to handle white elephant soiree' at the Christmas party at Trippers. → Vickie Vandenberg will present 2013 volunteers with calendar awards on Saturday. → Young Eagle (YE) of the Year awaits selection. → Discussed EAA55's membership in the Mason Area Chamber of Commerce & agreed this is a valuable thing for the Chapter to be doing. Voss moved, James supported, motion passed to renew annual membership for \$100. → Membership dues for 2014 now due. → Steve Houghton advised we received a letter asking if we would be interested in helping assemble aircraft. After discussion, it was decided we are not interested. → Spry suggested EAA55 generate a calendar for 2015 with pics of member aircraft. → Miller explained request received from YAM for donation to help save the Willow Run Bomber Plant. Voss moved, Houghton supported, and motion passed to donate \$100. → Miller reported that he was checking on nominating Kyle Bradford for the Wright Bros. Award. → President elect, Houghton, is considering appointment of directors to fill vacated seats on the board. → A few years ago, Miller inventoried our personal property. Our inventory needs to be updated. → Spry suggested a chapter gathering; movie night or euchre tournament or other sometime during January or February. → Voss moved to adjourn, Madziar supported & motion passed - meeting adjourned at 8:30 pm. → This was the last meeting presided over by long serving and hard working President Ken Vandenberg – THANKS KEN. → Respectfully submitted, Jack Voss, Secretary.

EAA Chapter 55 Membership Meeting December 14, 2013

→ President Houghton called the meeting to order at 09:30am. → Approximately 39 members & 3 guests in attendance. → Following the National Anthem, we thanked the breakfast team. → Breakfast team for January announced. → Secretary's Report for 11/9/13: moved, supported, & accepted as printed in the newsletter. → Treasurer's report for 11/30/13: moved, supported, and accepted. → Suggestions for a movie night, euchre tournament or other - ideas welcome. → President Houghton & members thanked our retiring officers-Ken Vandenberg, Joe Madziar, Jack Voss. → Spalding advised 2014 dues being accepted. → Everything's ready for the Christmas Party. → EAA55 is donating \$100 to the YAM "Save the Bomber Plant" campaign. → Chapter's 55th

anniversary plans include a "restaurant" night in spring and a summer potluck. → Discussed info from EAA/AOPA regarding drivers license may replace 3rd class medical. → Dan Schiffer presented plaque to 2013 Member of the Year = Margie Clark. → Vickie Vandenberg presented calendar awards to recognize our 2013 volunteers. → Margie Clark announced need for YE pilots & ground crew volunteers for the upcoming summer. → Tom Botsford announced Vickie Vandenberg has been selected by the Mason Area Chamber of Commerce to receive the 2014 Presidents Award. → EAA55 is looking for a volunteer to be our Program Coordinator to schedule programs for our monthly meeting. → Big "Thank You" to member Jeff Shaud for donation of the Meijer Gift Cards (we have used for buying groceries and a drawing). → Meeting adjourned at 10:00am. → Program presenter failed to arrive (most likely due to weather). → Respectfully submitted, Vickie Vandenberg, Secretary.



MEMBER OF THE YEAR
Dan Schiffer presented to Margie Clark



TIDBITS

By Vickie Vandenberg (vickie@eaa55.org)

NEW MEMBERS: Chapter 55 welcomes new member Christopher Halliday.

SPECIAL THANKS: Jeff Shaud has made several donations of Meijer Gift Cards to the chapter. So far we have used two to buy breakfast groceries and one as a prize to members paying their dues. Thank you, Jeff!!



YOUNG EAGLES

By Phil Tartalone (phil@eaa55.org)

Nothing to report for month of January.



NOTES FROM CAPE JUBY

By Terry L. Lutz

Chapter 55 Flight Advisor

Last Fall, I gave a presentation to EAA Chapter 704 in Sparta, and while wrapping things up I was asked if I could speak to the employees of Alcoa Howmet in Whitehall. Always ready to learn new things and make new friends, I suggested a date in early December. How many of us would have guessed there was a very high-tech aerospace manufacturing facility in a Michigan location many of us associate with summer vacations?

My presentation was tailored to turbofan engine testing, and the importance of quality, both in the flight test and operational environment. I spoke first to their executive staff, and then to a combined audience of production and quality assurance people. They really appreciated hearing about the importance of what they do each day, as applied to both the test environment and airline service.

The origins of Alcoa Howmet go back all the way to 1926 when a company named Austenal was formed to make precision investment castings of Vitallium, a metal composed mainly of cobalt, chromium, and molybdenum. During the Great Depression, this metal replaced gold in dental applications. With knowledge of metals and castings, Austenal began producing castings for superchargers during WWII.

The company was purchased by Howe Sound Company in 1958, which later purchased Michigan Casting Company, which specialized in strong, lightweight ceramic shells to improve casting quality. Howe became Howmet in 1965, when it decided to specialize in precision metal production. The company had several owners since that time, until 2000 when it was purchased by Alcoa. In 2004, it became Alcoa Howmet when it was merged into Alcoa Power and Propulsion. Howmet is currently the largest supplier of turbine blades for engines built by all the major manufacturers. They have facilities around the world, including several in the US and France, one in the UK, and one in Japan.

The concept of investment casting is quite interesting. A wax material is poured into a mold and when solidified, it is in the form of the part you want to produce. The next step is to dip the wax casting into a fine ceramic slurry, which gives the fine surface for the finished part. When the first layer of ceramic solidifies, the part is dipped into progressively coarser grains to give the mold strength. When the mold is strong enough, it is heated so that the wax can melt and be drawn out of the mold. When the mold is completely clean, liquid metal is poured in which will eventually become the finished part.

When you hold one of their turbine blades in your hand, it looks like a single piece of metal, but when you see it cut in half, you realize the intricate passages for cooling air inside the blade. Not only does cooling air pass from the bottom to the top of the blade, it actually circulates up and down the

blade before exiting at different spots along the blade. Now imagine how precisely this casting has to be made, and how precisely it needs to be inspected to be certain there are no flaws that would lead to a problem in service.

If that weren't high-tech enough, imagine this: when liquid metal is poured into the mold, the objective is to create the casting from a single crystal of metal. The metal begins to solidify at the point where a metal "seed" is placed in the mold, and the crystal of metal grows from that point. This single crystal technology allows for the highest temperatures within the turbine of a turbofan engine, which is what gives great performance and fuel efficiency.

There was one other piece of technology I was able to see in operation at Alcoa Howmet. There have been some news reports about 3-D printing, but no details on how this is actually accomplished. If you have the design for a new part in a digital data base, the part can be created in resin. Liquid resin is spread on a perforated sheet and a laser activates the resin in the shape of the part you want to create, but in thin slices. The slices are stacked to form the part in resin, which solidifies enough to form the investment part of a casting. It is then coated with ceramic mold material. The resin will eventually be cleared from the mold so that it can accept the molten metal that forms the finished part. It is a cost effective way of creating molds for limited production and prototype castings.

I don't know if we should consider the Winter of 2013-14 a winter to remember, or a winter to forget. I am thinking of throwing it into the dust bin of history that nobody should be forced to remember. And we are only (as of this writing) 16 days into it (74 days to go, but who's counting?). Already we have faced power failures, several snow events, and now the effects of a "polar vortex".



FROM THE FLIGHT SURGEON

By Gregory Pinnell, MD

Report pending, maybe sent at a later date.

Fly safe!

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

CHAPTER 55 CLASSIFIEDS

EAA55 Builders Hanger: one space; Steve 517-290-7528

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

WANTED:

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.

HANGER FOR RENT: Heated, running water, insulated, compressed air available. Door 40'x10' high, electric bi-fold; floor fiber-pour 18". Located on Skyway Estates; 60G; Eaton Rapids. Pete Chestnut 517-663-3118; pandp@wowway.com

FOR SALE:

**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

Contact Warren or Vickie to place your ad here!

PILOT HUMOR

A woman was flying from Seattle to San Francisco. Unexpectedly, the plane was diverted to Sacramento along the way. The flight attendant explained that there would be a delay, and if the passengers wanted to get off the aircraft the plane would re-board in 50 minutes.

Everybody got off the plane except one lady who was blind. The man had noticed her as he walked by and could tell the lady was blind because her Seeing Eye dog lay quietly underneath the seats in front of her throughout the entire flight.

He could also tell she had flown this very flight before because the pilot approached her, and calling her by name, said, "Kathy, we are in Sacramento for almost an hour. Would you like to get off and stretch your legs?" The blind lady replied, "No thanks, but maybe Buddy would like to stretch his legs."

Picture this: All the people in the gate area came to a complete standstill when they looked up and saw the pilot walk off the plane with a Seeing Eye dog! The pilot was even wearing sunglasses! People scattered. They not only tried to change planes, but they were trying to change airlines! True story...

POCKET CALENDAR

Feb 8 = Plymouth/Mettetal Chili; 11am-2pm

Feb 14-15 = Great Lakes Aviation Conf

Apr 1-6 = Sun n Fun

Jun 14 = YE Rally; 10am-2pm

Jun 15 = Dawn Patrol; 7am-11am

Jul 12 = YE Rally; 10am-2pm

Jul 28-Aug 3 = EAA AirVenture

Aug 9 = YE Rally; 10am-2pm

Aug 9-10 = Thunder Over MI w/USAF Thunderbirds

Aug 16 = MAD; 7:30am-2:00pm

Aug 27-Sep 1 = AAA-Blakesburg

Sep 2-7 = Stearman FlyIn-Galesburg

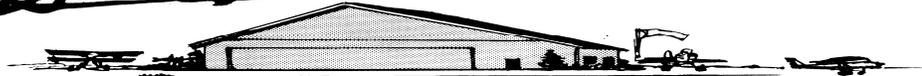
Aug 15-16, 2015 = 70th anniv/end of WWII

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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