

CHAPTER 55 EXPERIMENTAL AIRCRAFT ASSOCIATION

FEBRUARY 2012



Meetings are the 2nd Saturday of each Month

EAA Chapter 55 Hangar - Mason Jewett Airport – 643 Aviation Drive, Mason, MI 48854

Pres: Ken Vandenbelt 589-5051 Vice Pres: Bill Purosky 214-2729 Treas: Al Spalding 676-3370

Secr: Vickie Vandenbelt 589-5051 Editor: Warren Miller 214-2656 (all Area Code 517) www.EAA55.org



Climb and Maintain Flight Level 55

Seems like new year is really moving fast. We're all ready talking about summer activities and it will be here before you know it.

Speaking of activities, many members have been tossing out ideas to increase activity at the chapter and at TEW in general. Being involved in both the Mason Jewett Advisory Group & EAA55 - the buzz for 2012 will be how to generate activity and income at TEW. And, I'd like to share some thoughts.

Revenue at TEW is down. Land/Building rents provide revenue but the primary source is fuel sales. Fuel sales at TEW were down 18% for the 2011 calendar year (compared to 20% state wide). Looking at 100LL sales: 28,773 gallons were sold in 2011 compared to 36,264 gallons in 2010. Then, compare these totals to the 77,106 gallons sold in 2004.

We have seen the economy and increased fuel costs have its impact on TEW and all of aviation. Sadly, we no longer have an FBO at TEW. And, we don't have a restaurant within walking distance. So, what can we do to improve the activity at TEW? And, in the process increase fuel sales?

We can hope that the economy is turning around - generating more operations and fuel purchases by TEW tenants. A N/S crosswind runway would increase operations in the summer months.

Other suggestions include hosting an airport open house; hosting a manufacturer/kitplane specific event; hosting an ice cream social or potluck or concert; start having a fly-in breakfast inviting pilots every Saturday or Sunday.

**Board of Directors Meeting
February 8, 2012, 7:00 pm
Chapter Membership Meeting
February 11, 2012
Breakfast 8-9 Meeting 9:30 am**

Another idea might be to host a "Mason Cash Mob". We would invite aviators to fly to Mason and we would shuttle them to downtown Mason to dine and shop at the stores and antique mall. And, you may have even better ideas.

Every idea has wonderful potential - but each requires a commitment. How do you feel about these ideas? Are certain ones more attractive? We can do this - we just need to share in the effort. How much of a commitment would you be willing to make toward the success? Your input is needed!!

In other news, CRAA Deputy Executive Director, Mike Daigle has resigned to accept a position with another airport. His last day will be February 15th and he will be missed. CRAA hopes to have a replacement in place by May.

As of this writing, we are lacking a program speaker for February and March. Suggestions welcome.

Share the passion,
Ken Vandenbelt

From AOPA; Feb 7, 2012: The U.S. Senate approved a \$63 billion long-term reauthorization bill for the Federal Aviation Administration on Monday by a 75-20 vote. The bill, which now heads to the White House for President Barack Obama's signature, will fund the FAA for four years. The previous long-term bill expired in 2007, and the FAA has been operating under stopgap measures since then. More at <http://www.reuters.com/article/2012/02/07/uk-usa-congress-faa-idUSLNE81600Q20120207>

From EAA President/CEO Rod Hightower; Feb 7, 2012: There's good news regarding the long effort to get a long-term FAA reauthorization bill through Congress, which would fund the agency for several years. House and Senate conferees worked out differences and finalized language in the bill, leading to both the House and Senate have passed the bill in recent days.

The bill is now on to the White House for President Obama's signature. This will end the string of 23 short-term funding extensions that kept the FAA operating since 2007 and allow the agency to plan and implement some of its key projects and initiatives. EAA Vice President of Government Relations Doug Macnair reports that the final bill is very good news for GA in other areas, too. EAA and other aviation groups have worked hard to have language included that benefits GA in a variety of areas, including no user fees or aviation fuel tax increases, funding for airport improvement projects and the NextGen air traffic control system, as well as progress for vintage aircraft data and airport through-the-fence agreements. This effort toward a full FAA reauthorization bill was the result of GA groups being stronger together to represent our members and all aviators.

Breakfast Teams

February	March
Lynn Brown	Ron & Becky
Joe Pirch	Broschart
Dan Schiffer	Rick Dallas
Tom Schroeder	Ray Fink
Brian Sheffield	Cliff Hale
Bart Smith	Dan Schiffer
Phil Tartalone	Rocky Stone
	Jack Voss



Lloyd Brown- Ed & Judy Search- John Caron - Bob Smith

EAA Chapter 55

Board of Directors Meeting, January 11, 2012

→Meeting was called to order at 7:04pm. →Directors present: Ken Vandenbelt, Vickie Vandenbelt, Doug Koons, Al Spalding, Dave James, Steve Houghton, Jim Spry, Ed Search & Joe Madziar. Absent: Warren Miller & Bill Purosky. →Secretary's Report dated December 7, 2011; Doug Koons made a motion to approve, Steve Houghton supported; all approved. →Treasurers Report for year ending 12/31/11; Vickie Vandenbelt made a motion to approve; Joe Madziar supported; all approved. →YE: Doug Koons advised that Phil Tartalone is ready to assume

responsibilities but may not be able to attend board meetings so Doug will assist. →Membership: Vickie Vandenbelt reported two new members 1 rejoined. →Programs: still need coordinator. →Tables: still looking into. →EAA TriMotor: \$2000 charge plus hanger for two days; will scratch consideration at this time. →Builders Hanger Lease: review for updates. →Builders Hanger: still have issues with heater. →Doug Koons made a motion to approve Newberry Aviation Scholarships for Kyle Curtiss \$1000 pilot WMU; Brian Kolbuch \$1000 mgmt EMU; Justin Jaworski \$500 pilot EMU; and Joseph Moore \$500 pilot EMU; Dave James second; all approved. →Steve Houghton made a motion renew the chapter agreement with EAA national for same limits as previous; Doug Koons supported; all approved. →Still need of someone to fill the chapter secretary position. →Joe Madziar made a motion to approve \$250 expenditure to reserve Eldorado for the 2012 Xmas Party; Vickie Vandenbelt supported; all approved. →Discussed EAA Academy candidate; tabled until we know what she needs. →Discussed need to work on the steak grill. →Joe Madziar made a motion to adjourn; Jim Spry supported; adjourned at 8:35pm.

EAA Chapter 55

Gen'l Membership Meeting, January 14, 2012

→Meeting was called to order at 9:34am with approximately 38 members and 6 guests present. →Following the National Anthem, President Vandenbelt thanked the breakfast team & announced the team for February. →Secretary's report dated 12/10/11; motion to approve; second; all approved. →Treasurers report dated 12/31/11; motion to approve; second; all approved. →YE: Phil Tartalone now our official coordinator. →Al St. George has had to resign his position as secretary; do we have a member willing to accept an appointment? →Xmas Party 2012; booked for the Eldorado. →Newberry Aviation Scholarship Awards announced. →YE Credits; requested approval to combine all pilot credits for the chapter to use; no objections. →Events Planning; first meeting to be held Wed; 2/29/12 @ 7:00pm - all welcome! →Joe Pirch/Jim Spry want to host a social night; games; movie or something. →Michelle Smith sends thanks to the chapter for use of the meeting room for the luncheon. →EAA Name Tag offer signup sheet. →Member dues payable for 2012. →Bill Purosky provided info on GLIAC. →Doug Koons advised of YE "Thank you"s. →Motion was made & meeting adjourned at about 10:10am. Bill Bezdek presented a very interesting program on celestial navigation. →Vickie Vandenbelt, Acting Secretary



TIDBITS ~

By Vickie Vandenbelt

NEW MEMBERS: Chapter 55 welcomes new member Michael Lutz.

LETTER FROM EAA ON REORGANIZATION: In January, EAA CEO Rod Hightower and EAA Founder Paul H. Poberezny released a letter outlining reorganization and restructure on the national level. It will change how EAA operates its business with more concentration in areas that support the EAA mission. If you did not see the email visit http://www.eaa.org/chapters/resources/articles/120124_lette r.asp

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

EAA NAME TAGS: Last chance to place your order via email or at the February meeting.

CHAPTER MEMBERSHIP: 2012 dues must be received by February 15th in order to remain a member in good standing and to continue on the mailing list.

EVENTS PLANNING MEETING: Mark your calendar for the first meeting for the 2012 Events Planning - Wednesday, February 29th @ 7:00pm

WWW.EAA55.ORG: We had over 10,000 hits on our web site last year. I imagine that many were members but others are also looking at what we do.

ESTATE SALE: Bart Smith's daughter, Michelle, is having an estate sale Feb 16th (tent); Feb 17th & Feb 18th; at her dad's house; 204 Steven Street; Mason.

YOUNG EAGLES

By Phil Tartalone

Nothing to report for February.



NOTES FROM CAPE JUBY

By Terry L. Lutz
Chapter 55 Flight Advisor

In the previous century, I checked out in the KC-135 at Castle AFB in central California. I swear I saw General Curt Lemay go by in a staff car, and saluted just in case. The academic course included one full week of intensive study on how to do performance calculations. The performance books were at least an inch thick. You entered with gross weight, corrected for temperature, then slid the line to the side for more corrections, including pressure altitude and runway slope. The final performance exam took a full day, and you had to have a really sharp pencil and a flexible, transparent straightedge to get numbers accurate enough to pass.

We finally got the flight line and were preparing the cockpit for our first flight as a crew when one of the instructors said "Here are your performance numbers", and handed us an electronic calculator that had been programmed with all the

charts from those inch-thick books. He was one sharp pencil line from being dangled headfirst out the crew entry hatch!

Today's modern flight decks are being somewhat revolutionized by the concept of the "Electronic Flight Bag". It's probably a good idea, because with the number of published approaches increasing around the world, Jeppesen binders are getting fatter, and to carry all those books around, the arms of many pilots are getting longer. On the bright side, longer arms means it's easier for the Captain to reach the gear handle when the First Officer is flying.

There are a lot of good reasons to remove what amounts to over 100 lbs of paper from the flight deck. While another 100 lbs may not seem like much to a B777 taking off at 775,000 lbs, after you "drag" that 100 lbs more than 7,000 nm, the amount of fuel required to carry it (just like the amount of fuel required to carry a 180 lb passenger) becomes significant. And if you multiply it by several thousand flights per year, the fuel used is significant. So the industry is going green on weight savings (but you didn't hear that from me.....).

It was originally thought that the EFB could someday be integrated with the all the avionics in the airplane. The pilot could arrive at the airplane with all the information on a flash drive, insert it into the EFB, push a button, and voila! The flight plan, fuel burn, takeoff calculations, and a million other details would be transferred to the onboard avionics. But hasn't worked out that way.

The first EFBs, like the electronic calculator we used on the KC-135, were battery operated stand-alone computers and identified by regulators as Class I EFBs. As technology evolved, airline operators requested fixed EFB installations, with specialized software and connection to the airplane's electrical system. They were identified as Class II EFBs. Class III EFBs were intended to connect directly to aircraft avionics systems, but as the industry moved in that direction, manufacturers, regulators, and airlines took a step back. While there were certification and security concerns about software connection to aircraft avionics, it was the airline customer who decided that the autonomy to program and load the devices themselves dictated a Class II EFB.

Then came the Apple iPad. This marvelous device has caused a revolution of a different sort. One of the limitations and concerns of regulators has been redundancy.

If the Captain and First Officer both have laptop-based EFBs and one fails (either a hard failure, or loss of power), the other one becomes the sole source of flight information for the pilots. The iPad design, with touch screen, high reliability, and very long battery life, has overcome many of these concerns. So much so that the FAA has recently granted approval for the use of iPads as EFBs, provided the operator can show that the iPad provides the same reliability as the paper charts it replaces.

American Airlines was the first airline to receive approval, using the Jeppesen mobile TC app for approach plates and enroute charts. However, it specifically states that the device must not display 'own ship' position. Presumably, this is so the crew of an airplane without a certified GPS would not utilize the uncertified GPS position supplied by the iPad's built-in GPS receiver. For more information, you can view FAA InFO 11011, FAA Order 8900.1, and Advisory Circulars 91-78 and 120-76A at the FAA's web site.

I have an iPad 2 with the internal GPS receiver, and decided to try some of the apps designed specifically for aviation use. ForeFlight and SkyChartsPro are two of the apps that I have tried. Both have all the sectional charts digitized and overlaid so you can fly from one side of the country to the other without folding a map! What makes the iPad so useful is you can zoom in and see just the area from Mason Jewett to Capital City, or you can zoom out and see the entire routing from Mason Jewett to Atlanta Hartsfield.

ForeFlight gives you the ability to flight plan in a very logical sequence. You put in cruise speed and fuel consumption for your airplane, provide the routing, and ForeFlight will calculate your speed and fuel on arrival. AND, it will automatically connect to the internet and file your VFR flight plan. AND, it has a reverse function, so that when it is time to head back to Mason Jewett, it provides the flight plan in reverse. To give ForeFlight a true test, I programmed a flight from Mason Jewett to Cherry Capital in Traverse City, then gave the iPad to Nancy so she could follow the flight while I used a Garmin 296 up front. The app wasn't even selected when I gave it to her.

We took off and headed northwest and before I could ask how it was going, she said the line between airports was there, and a little airplane was following the line. What ForeFlight does is use your rough position, determined from cell phone towers, then switches to GPS navigation once it is receiving enough satellites. I have used it in the front since then, and you really can do away with the paper charts. At last count, there are 49 different gadgets you can buy to hold the iPad on your knee. Or you can come up with some ingenious gadget of your own.

When American Airlines received approval to use the iPad on the flight deck, there was the obvious question about use of portable electronic devices. Flight Attendants can toss you off the airplane (hopefully at the gate) if you are using your mobile device, so if the pilots are using them and THEY get tossed off, who will fly the plane? OK, that's not the obvious question.

Probably the main reason you shouldn't be using a mobile device is that they are continuously trying to connect to cell phone towers. I can tell you from experience that this is heard on the interphone up in front, and if 100 people have mobile devices trying to do the same thing, who knows how much of the airplane's avionics could be disrupted.

As for the iPad itself, and other Apple devices, they have an "Airplane Mode", which turns off the cell phone portion, and still allows use of the device in other modes.

We are in the process of developing an iPad-based Class II EFB, and adapting existing windows-based software to a more graphic solution on the iPad. I sat in a meeting last week, and of our several engineers brought their windows-based laptops. Looking like skinny high school kids with glasses and hardly a whisker or two, the team hired to create the iPad application had all brought Apple laptops. They were making software changes to the graphics, in real time, and on screen for all of us to view. Amazing things, these Apple computing devices!! And Steve Jobs was truly a genius of our time.

Since I don't have a FACEBOOK page for general horn-tooting, I thought you might be interested in a simple message about an interesting performance test sortie I flew a few weeks back. As you may know, Airbus is now testing a new set of winglets on the A320, called "Sharklets". The airplane we are using is A320 Msn001, the prototype A320, which has been reliably in flight test service since it's first flight on February 22, 1987. F-WWBA, or just "Bravo Alpha", is a marvelous workhouse test airplane for us, and always a pleasure to fly. The Sharklets first flew on November 30, 2011, and after extensive flight-testing throughout the flight envelope, a series of performance tests were flown in preparation for a back-to-back test with the Sharklets removed, and reinstallation of the original wing tip fences.

Since I was responsible for flight crew scheduling last week, you could easily say that I was sharp-shooting the schedule for one of the better development flights. But in fact, the Chief Test Pilot came in the office on Thursday afternoon and said that there was an early flight on Friday, and that Etienne Miche-de-Malleray and I were the only pilots who were available for a briefing later in the day. We briefed for a rather interesting flight to get performance data with the wing tip fences installed. Since there would be quite a bit of weather around Toulouse in the altitude block we planned for testing (FL040-FL090), we decided to conduct the test over the Mediterranean, with test controllers from the French Flight Test Center, and telemetry from Airbus in Toulouse.

We were on board at 0730 and took off just after 0800, in overcast but otherwise good weather conditions. Since we were all up fairly early, someone brought croissants, and we munched on those for the short cruise leg out to the Mediterranean. The weather over the sea was mainly clear, so we descended from FL150 to FL040 to take temperature and wind data in the test area. Test conditions were generally good, but there was a steady wind out of 330 degrees, so our test axis was generally 060/240 degrees to put us 90 degrees to the wind. With the APU running, we shut down the Number 1 engine, slowed down and extended flaps to position 1+F.

The first speed was 142 knots, and with different flap configurations, the speed went as low as 121 knots. The objective was to collect single engine climb performance data with one engine shut down, and the other engine running at TakeOff-GoAround (TOGA) thrust. The pilot has to capture the speed, slowly bring in thrust, and retrim the rudder as necessary. At times, we were climbing with full thrust on one engine, and full rudder to maintain a steady heading sideslip.

Speed was required to be maintained +/- 1 knot, and to do that requires precise control of pitch attitude. It is easier using the HUD, but when using the PFD, pitch changes as small as the edge of the pitch attitude symbol (about 1/4 degree) were necessary to maintain airspeed. At times, the atmosphere proved unstable because of temperature inversions or changes in the wind gradient. In those cases, pitch changes of up to 2 degrees would occur. Obviously, there was some risk should the good engine suddenly fail. Since pitch attitude during testing was about 15 degrees, it would have been necessary to quickly reduce pitch to a descent attitude and re-light the Number 1 engine. However, the operative engine performed flawlessly during our tests. In all, we flew the 20 originally planned test points, and 5 additional points because of unstable conditions in some parts of the test area. Flying the test points was split fairly evenly between the two pilots.

We returned to Toulouse to perform an auto land for a direct comparison of the auto land characteristics previously observed with the Sharklets. The weather had deteriorated, and with the wind-shield-wipers-beating-out-a-tempo we landed with 600/2 in moderate rain. Attached is a picture of the crew after the flight. From left to right: Etienne Miche-de-Malleray (Captain), yours truly (FO), Sandra Bour-Schaefer (FTE), Jean-Francois Azzopardi (Test Flight Engineer), and Stefan Vaux (FTE). They are exceptional people, and I wish you could meet them all.

The best part of the day was that with this airplane, F-WWBA on flight 2756 since new, on flight 627 as an Airbus test pilot, and with this terrific flight test crew, I surpassed 15,000 hours total pilot time.



While I hear you are enjoying a rather mild winter in Michigan, I predict that the Lion will truly roar when March comes in, so don't set up those lemonade stands just yet.

It's a good time to play catch up on those little maintenance items you need to attend to, and to help your fellow pilot do the same.



FROM THE FLIGHT SURGEON

By Gregory Pinnell, MD

In a major announcement that was not completely unexpected the FAA announced that beginning 10/1/2012 the paper 8500-8 Airman Medical Application forms are going to be history. After that date the only way to apply for a FAA medical will be through the online application MedXPress located at <https://medxpress.faa.gov/medxpress/>.

A link to MedXPress can also be found in the lower right homepage of www.OK2FLY.com. The FAA site works quite well but has some implications for those who fly LSA and cannot afford to have a denial on their medical. You should contact your AME if you have questions about how to effectively use MedXPress. EAA will have a Webinar on MedXPress on Tuesday, February 7, 2012 at 8pm EST. See www.EAA.org for more details or visit me at www.OK2FLY.com. Fly Safe!

CHAPTER 55 CLASSIFIEDS

EAA55 Builders & Storage Hangars 517-589-5051

WANTED: Garmin 396 or 496; Dan Schiffer 517-862-6413

ESTATE SALE: Feb 16th (tent); Feb 17th & Feb 18th; at the home of deceased member Bart Smith; 204 Steven Street; Mason.

FOR SALE:

Snowblower; MTD; 3HP; 21"; single stage; \$99; Greg Hover 517-676-5126

Assorted woodworking tools; Steve Houghton 517-333-2196 or steve.houghton@att.net

Legal Eagle ultra-light; estate of Jim Cushing; \$10,000 OBO; James Devereaux 989-534-1333

2009 Kitfox; Model 4-1200; Rotax engine; many extras; Jack Toman 517-882-8331

KIS TR-1, Subaru Legacy engine; GPS nav/com; many extras; George Moore 517-536-1034

DTV analog or digital antenna; \$20.00 George Moore 517-536-1034

Yesteryear Aviation; new surplus hardware; 517-676-4416
Contact Warren or Vickie to place your ad here!

POCKET CALENDAR:

Feb 18 = Mettetal Chili Flyin; 11-3

Feb 29 = Events Planning Mtg; 7:00pm

Mar 27-Apr 1 = Sun-N-Fun

June 9 = EAA55 Young Eagles

June 10 = EAA55 Dawn Patrol

July 14 = EAA55 Young Eagles

July 23-29 = AirVenture

Aug 4-5 =Thunder Over Michigan

Aug 11 = EAA55 Young Eagles

Aug 18 = Mason Aviation Day

Dec 9 = Chapter Xmas Party