

CHAPTER 55 EXPERIMENTAL AIRCRAFT ASSOCIATION

MARCH 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

Have to say that our February meeting was a blast! As soon as you walked in the door, you could smell those fresh donuts !! Thank you, Dave - they were delicious !! Dale Alexander came over from KZoo to present the program. He put together a great DVD presentation of a trip taken by himself and four other pilots. They flew to a base airport in Vermont and then flew day trips to a variety of back country airports in the area. It was a fun presentation and we shared a lot of laughs.

On February 13th, twelve EAA55 members and myself attended the Mason Area Chamber of Commerce Awards

Dinner at Eldorado Golf Course. It was a wonderful dinner and celebration of the accomplishments of many community members and organizations. I was humbled to accept the Special Recognition Award on behalf of all the members of Chapter 55 who have worked so hard throughout the years. You probably won't be surprised to learn that my acceptance speech was the shortest one!!

We held our first events planning meeting for 2013. General discussion centered on the preliminary paperwork and the groundwork for promoting, advertising, budgeting etc. We are always looking for fresh ideas and any assistance that can be provided to help make the job easier. We do hope that you will mark your calendar and come out to the chapter to volunteer for our Dawn Patrol and our Mason Aviation Day. The more who share the work - the less burden there is. We did shorten our times for both events. The Dawn Patrol will be from 7am to 11am on Sunday, June 9th. And, Mason Aviation Day will be from 7:30am to 2:30pm on Saturday, August 17th.

We return to Daylight Saving Time this weekend. Hopefully, that means we will start having some great spring-like weather. Come on out to the airport to fly or to visit. Won't be long before we will be getting the picnic tables out for any who wish to just sit and enjoy. And, SNACKS, we still have Klondike bars - going to half price this month! Water, pop, chips and candy are also available at very reasonable prices!

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

Regretfully, I just received word that due to the current continuing resolution and sequestration, Rick Anderson of the FAA will not be able to do our program for this Saturday's meeting. At this time, the slate is open.

We did put together a great deal of pictures from past events, plus chapter members with their planes. I hope to have a presentation of them at the February meeting and I hope that we will keep adding to the collection. If we don't have a picture of you with your plane (past, present or project), please get one to Vickie electronically or get her a print that she can scan (she will return the original).

This month our program will be presented by Dale Alexander. He has put together a DVD on a flying vacation he and several others took to various airports of New England.

Share the passion!
Ken Vandenbelt, President

Breakfast Teams

<u>March</u>	<u>April</u>
Ron Broschart	Louis Bacon
Becky Broschart	Don Frank
Rick Dallas	Deanna McAllister
Ray Fink	Don McAllister
Greg Hover	George Moore
Greg Shannon	Gary Nesbitt
Carl Zayatz	George Spencer



February Breakfast Team: Tom Schroeder; Joe Pirch; Phil Tartalone (Lynn Brown not shown)

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

EAA Chapter 55, Board of Directors Meeting February 6, 2012

→Called to order at 7:00 pm. In attendance: Ken Vandenberg, Joe Madziar, Al Spalding, Jack Voss, Jim Spry, Dave James, Vickie Vandenberg, Bill Puroskey, Steve Houghton, & Ed Search; Absent Warren Miller. →Secretary's report of 9 Jan 2013; Madziar moved, Puroskey supported; motion passed to accept as read. Treasurer's report as of 31 Jan 2013; Puroskey moved, V. Vandenberg supported; motion passed to accept as read. →Young Eagles; no report. →Adult Eagles (AE); no report. →Membership: Vickie reported a few members yet to pay dues; Thank you to those who have paid! →Fly Outs; no report & Activities; no report. →Program coordinator; Vickie reports set through November. →Door lock codes have been changed. Code are available to members in good standing (dues paid) from Ken Vandenberg or Al Spalding. →Visit to Lansing tower KLAN following April meeting; Joe Madziar is the honcho on this project. →Coffee Mugs; no report. →Storage room door; will attach an apparatus to close the door. →New hangar tenants; Greg Shannon (builders' hangar) & Greg Rheeder (storage hangar). →Safety officer (ground and flight) Steve Houghton will report on this next month. →2013 events planning mtg. 27 Feb 2013, 7:00 pm in the terminal. →Adjourned at 7:35 →Respectfully submitted, Jack Voss

EAA Chapter 55, General Membership Meeting February 9, 2012

→Called to order at 09:38 →By my count, we had 42 people here today, including 2 guests. →Following the National Anthem; Thanks to the breakfast team (That's GOOD food!) And, thanks to Dave Groh for the nutritious, non-caloric donuts. (Tasty!) →Announced March breakfast team. →Secretary's report for January 12 January's general membership meeting was accepted as printed in the newsletter. →Treasurer's report as of 31 Jan 2013 was accepted. →In April, we will visit the control tower in Lansing following our membership meeting. Joe Madziar is arranging this for us. →First 2013 Events Planning organizational meeting on 27 Feb, 2013 at 7:00 →Vickie Vandenberg brought in a digital picture frame with pictures of members and planes. WOW! →Adjourned at 09:51 →Dale Alexander presented DVD of trip by five pilots who flew to Maine & Vermont to land at outback airstrips. Beautiful scenery, and lot of fun. →Respectfully submitted, Jack Voss



TIDBITS By Vickie Vandenberg

CHAPTER TOUR OF THE LANSING TOWER: A tour of the LAN tower is planned as a road-trip program following our April meeting.

RELAY FOR LIFE: The Mason Area Relay for life will be held June 14th & 15th at the Ingham County Courthouse Lawn. It was suggested that EAA55 do some fund raising for a donation in memory of our cancer victims and in honor of our cancer survivors. We are still thinking how we will raise funds - maybe special breakfast donations, or a potluck, etc. Anyone wishing to make a donation may do so.

EVENTS PLANNING MEETING: Next events planning meeting is scheduled for Wednesday, April 24th, at 7:00pm.

NEWS FROM RICK ANDERSON, FAA: Effective March 1, 2013, and until further notice the East Michigan FSDO will not be doing any aircraft certification functions. You will need to contact a DAR for certification of experimental aircraft.

And, March 31, 2013, signals the end of an era, as the last paper airmen certificates become invalid that day. Those include FAA certificates for A&P mechanic, repairman, flight engineer, and ground instructor, meaning that if you only have a paper certificate, you are not eligible to exercise those privileges until you receive a new, plastic certificate from the FAA. Airmen are not required to surrender their paper certificates and may retain them as keepsakes. However, those paper certificates will no longer be officially recognized after March 31st - even if you have ordered a plastic replacement that has not yet arrived.

NEWS FROM AOPA: AOPA President Craig Fuller has notified AOPA's Board of Trustees of his intent to step down from his position and from the board. He plans to remain in his current role until a successor is ready to assume the position. The board will conduct a national search for his successor. Fuller, who took office January 1st, 2009, and is only the fourth president of AOPA since the association's founding nearly 75 years ago, will assist with the search for a new president and the transition to a new administration.

SNACK SALES: Don't forget to stop in for a snack when you visit the airport. We have water, pop, chips, cookies and candy available. And, Klondike Bars are now half price - only 25 cents each.

THE RECREATIONAL AVIATION FOUNDATION: Last month, Dale Alexander talked about his flying trip to the backcountry airports of Vermont. He mentioned that their trip was coordinated by a member of the RAF. Several of us asked for additional information. I have attached an abbreviated copy of the RAF brochure. This is a 501(c)3 foundation. Additional information can be found at www.theraf.org.

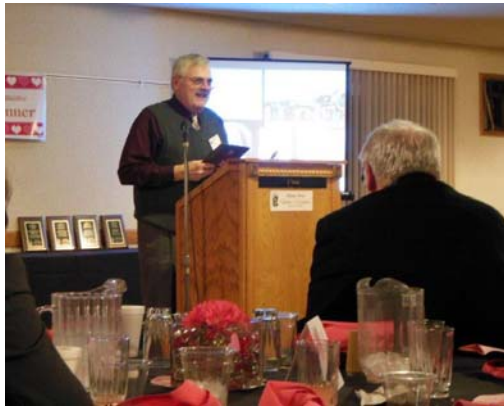
HUMOR: From Al Spalding: I take the monies from our February Saturday meeting to Independent Bank for deposit. The bank clerk asks what kind of an event did we have? I told her it was just our regular monthly breakfast meeting.... She says "THIS MONEY SMELLS LIKE DONUTS". Well, as a matter of fact ...



Dave and the Donuts



MACC DINNER; Ken Vandenbelt accepting Award



YOUNG EAGLES

By Phil Tartalone

No report this month.



NOTES FROM CAPE JUBY

By Terry L. Lutz

Chapter 55 Flight Advisor

Battery technology is a hot topic in aviation right now. Lithium-Ion batteries are drawing more attention than amps during a recharge cycle. This type of battery technology pervades almost every electronic device we use today. From laptops to cell phones, lithium batteries are in use, and the use is growing. They tend to have higher energy density and longer life than other batteries. If you look closely at the labeling where small batteries are sold, you'll be surprised at how prevalent they are.

Non-rechargeable lithium batteries, used in flashlights and other small electronic devices generally have lithium metal, or lithium compounds as an anode. Lithium-Ion batteries (LIBs) contain lithium ions which move from cathode to anode during discharge, and in the opposite direction during recharge. LIBs have high energy density, no memory effect, and a slow rate of discharge when not in use. These batteries are most commonly found in hand-held electronics, from cell phones to iPads.

There are different chemistries present in LIBs. Lithium cobalt oxide (LiCoO_2) is the prevalent chemistry in the hand-held devices most of us are using. This chemistry has the highest potential for fire when damaged or if improperly charged. Other chemistries are lithium iron phosphate (LFP), and lithium manganese oxide (LMO), normally used for power tools and medical equipment. Finally, lithium nickel manganese cobalt oxide (NMC) is a chemistry with potential in the automotive industry.

LIBs have caught fire, in the installed application, and during shipment. It is enough of a concern that LIBs cannot be shipped on an airplane carrying passengers. There is surveillance video of a pallet loaded with LIBs that is accidentally knocked over while sitting on the ramp near an airplane. It was placed upright and within several minutes it caught fire. Fortunately, it was still sitting on the ramp. But tragedies have occurred. In September 3, 2010, UPS Flight 6 departed Dubai (in the Middle East) bound for Cologne, Germany. There was a fire in the B-747 cargo hold, which contained LIBs. The airplane crashed, killing the pilots. On July 28th, 2011 an Asiana Airlines B-747 freighter, carrying 1000 lbs of LIBs caught fire in-flight and crashed into the sea south of Korea. Both pilots were lost.

In an aircraft application, LIBs offer a high charge density with 30% to 40% less weight and volume than a conventional NiCad battery. The first aircraft use of LIBs was on the Cessna CJ4 and Gulfstream 650 aircraft. In one case, while recharging the batteries of a CJR, the batteries caught fire. The investigation,

along with other data from LIB testing caused both companies to back away from their use on aircraft.

The batteries which caused problems for the B-787 are LiCoO₂. The investigation seems to be centering on the formation of what are called “dendrites” within the cells of the battery. Dendrites are microscopic structures that form in the battery due to uneven absorption and desorption of lithium ions, or if tiny foreign particles are present in the battery. These structures can penetrate the membrane that separates the cathode and anode, causing physical contact and an internal short circuit. This short circuit generates heat, which can cause thermal runaway and fire. Fire occurs when the gases produced by the overheat condition are ignited.

Elon Musk, who heads SpaceX, was in the news last week discussing the SpaceX Dragon that was launched with supplies for the International Space Station. He is also CEO of Tesla Motors, which makes electric cars. His cars and spacecraft use the LiCoO₂ technology. He defends these batteries, but notes that instead of the large, closely spaced cells in the batteries of the B-787, there should be more cells and more space between the cells.

Boeing is in a difficult situation. While a high level of safety for LiCoO₂ technology will eventually be proven, it will be a challenge to prove it without a major re-design of the battery system in the B-787. Then it will have to pass a rigorous certification process by the FAA. The FAA is under pressure from both the NTSB and the U.S. Congress to make sure that these batteries will not catch fire in-flight. If Boeing decides to re-design their battery and battery charging system to include NiCad batteries, it will take a good amount of time to design, then to modify all the existing aircraft, which are currently grounded (no electrical puns intended!!).

The Airbus A350 was designed with LIBs, but with the more conservative lithium iron phosphate chemistry. Working with long-time battery supplier SAFT, a French company, the LFP batteries will initially fly on the first few flight test aircraft. But knowing the difficulty that lies along the path of certification of these batteries, Airbus decided to dust-off the design that already existed for NiCad batteries and use that concept for initial certification and production of the A350. A lot will be learned from the flight test aircraft, and eventually a LFP concept will fly on certified aircraft.

I had dinner a few days ago with a couple of test pilots from Rolls Royce. They were in Miami for B-747 refresher training at the same time I am here for A320/A330 refresher training. Phil O’Dell related to me an interesting Spitfire story that I thought I would pass along. If you recall, the test pilots at RR are allowed to fly the company Spitfire. Phil had been with RR all of 4 months, and had about 5 hours in the Spitfire when a significant business deal had been made between RR and an airline in Brazil. The deal was to establish an engine overhaul facility in Brazil that would benefit both companies.

An air museum, established by the owner of the Brazilian airline, had purchased a Spitfire in Chino, CA, then had it shipped to Brazil. The Brazilians did a good job of putting it back together. The RR engineers flew to Brazil, along with Phil, to check it thoroughly. By that time, the schedule was fixed, and there were

precious few days to prepare the airplane so it could fly a demonstration during the ceremony to inaugurate the new business agreement.

With three days to go, Phil sat in the cockpit for the first engine start. When he hit the starter button, the prop moved very slowly, then picked up a speed just a bit before the engine started. After a short flight to check the airplane carefully and practice some demonstration maneuvers, he landed and snagged the starter as being faulty. “No problem, that’s the way it’s supposed to be”, said the engineers. With 6 hours in a Spitfire, who was he to argue. The day before the ceremony, Phil decided they should try one more start, just to be sure. And this time the prop barely turned! Now under pressure, they took the starter off and found that an oil leak had contaminated the starter contacts with oil. So they fixed the oil leak and went into the city of Sao Paulo to search for starter parts. They finally found some at an auto parts warehouse that had a little bit of everything, a few of which would work in the Spitfire starter. It took until 4 am of the day of the ceremony to put everything back together and watch that beautiful Merlin crank happily through several blades before crackling to life.

Phil had to fly two demonstrations that day, one at a local Brazilian Air Force Base, and one at the airfield where all the dignitaries and the museum were located. The problem was, he had never flown in Brazil before. The son of the owner of the airline flew in with a Rockwell 690 and said that he would lead him to the Air Force base, and from there a Tucano (single-engine turbine training airplane) would take off and lead him to the civilian airfield where the museum was located. The agreement with the son was that the flight would be completely VFR, since the Spitfire had rather unproven instruments. Sure enough, almost immediately after takeoff the guy flew into the clouds, with Phil tucked tightly on the wing and the engineers peering nervously back at him through the windows.

At the Air Force base, the Rockwell 690 peeled off and Phil did a short demonstration with some loops and rolls. He noticed the Tucano taking off and joined on his wing. The pilot indicated that the Spitfire should follow him through a low pass, at which point the Tucano pilot made so low that he actually flew between 2 trees next to his squadron building. Phil took the high road and joined up when the Tucano pilot zoomed skyward after the pass. The rest of the day was “uneventful”, and in fact they arrived almost exactly on the scheduled time. The demo went fine and he parked perfectly in front of the crowd. Not bad for rookie Spitfire pilot!

There is a post-script to the previous story about the Spitfire that parked in front of the A380 at East Midlands last fall. It seems that one of the RR pilots flew the beautifully restored airplane and after a normal landing, while clearing the runway, felt that he had to retract the flaps quickly to improve cooling while taxiing to parking. But instead of grasping the flap handle, he took the gear handle and retracted the gear instead. This is guaranteed to generate a lot of noise and call to the insurance company. Not to worry – the airplane will be ready for the flying season this year – not sure about the pilot!

Winter isn’t over. Don’t forget that the air of spring will be filled with moisture and it will be cool. This is just the formula

for carburetor icing. Check it on the ground, and apply it for landing as a part of the landing checklist. Yes, even for the Lycoming engines! And with the sun promoting a little more flying, pay attention to those around you and give them a hand when you can.



FROM THE FLIGHT SURGEON

By Gregory Pinnell, MD

Senior AME/ Senior Flight Surgeon USAFR

A frequent question I get from pilots who are filling out the application for their FAA medical is “what doctors visits do I need to report on the form and what can I leave off?” You do need to report visits to any medical, mental health or counseling providers. However you can skip routine visits to eye doctors, dentists and FAA flight physical providers. Multiple visits to the same providers can be consolidated into the last time you saw that provider.

Still confused? Please call or write and we will help sort it out for you!

CHAPTER 55 CLASSIFIEDS

EAA55: Builders Hanger space; Ken 517-589-5051

WANTED:

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

FOR SALE:

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

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

New surplus hardware source; Yesteryear Aviation 517-676-4416

Contact Warren or Vickie to place your ad here!

WANTED WANTED WANTED

One Photo / One Sentence / Ten Members
Every Month !!!

POCKET CALENDAR

Apr 9-14 Sun-N-Fun

Jun 8 = YE Rally 1000-1400

Jun 9 = Dawn Patrol 0700-1100

Jun 15 & 16 = Thunder Over Michigan
(USAF Thunderbirds cancelled)

Jun 22 = JXN Dawn Patrol

July 13 = YE Rally 1000-1400

July 29-Aug 4 AirVenture

Aug 10 = YE Rally 1000-1400

Aug 17 = Mason Aviation Day 0730-1430

Sep 14 = JXN Dawn Patrol

Dec 14 = Christmas Party; Trippers; 1800

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.

PERMISSION TO USE original content from **WINGTIPS** is granted to other EAA Chapters provided proper credit is given to the source. Unless so noted, photos and other content are the Editor's.