

CHAPTER 55 EXPERIMENTAL AIRCRAFT ASSOCIATION

DECEMBER 2004



Meetings are the 2nd Saturday of each Month

Chapter 55 Hangar - Mason Jewett Field

Pres: Mike Arntz 694-4601 Vice Pres: Tom Botsford 663-1318 Treas: Gregg Cornell 351-1338
Sec: Drew Seguin 333-4531 Editor: Warren Miller 393-9385

Climb and Maintain Flight Level 55

This one will be short and something. If you don't have your money in for the Christmas party it's too late. The last count was 80 members and significant others, looks to be a very good time for all. Debbie Groh has been working diligently getting it organized.

As you know, we have elections for the Directors coming up at this month's meeting. So far the candidates are:

Bill Purosky
Gary Long
Deanna McCreary
Ernie Lutz
Doug Koons

So, if you have thought about getting involved, now is your chance. We will be taking nominations right up to voting time. Also this will be our annual meeting as required by HQ and the Chapter's Bylaws.

Hope to see you at the meeting and Christmas Party. Social hour starts at 6 pm and Dinner will be served at 7:30 pm.

Renee and I would like to take this opportunity to wish each and every one of you a very HAPPY HOLIDAY and a very safe and prosperous New Year.

Mike Arntz
President

Greasy Side Up

O'Hare Approach Control to a 747: "United 329 heavy, your traffic is a Fokker, one o'clock, three miles, Eastbound."

United 239: "Approach, I've always wanted to say this
I've got the little Fokker in sight."

DECEMBER SCHEDULE

Board of Directors' Meeting

Wednesday, December 8, 2004

Chapter 55 Meeting

Saturday, December 11, 2004

8 - 9 Breakfast / 9:30 Chapter Meeting



November Pancake Flippers: Leo, Russ and George

BREAKFAST W/CHAPTER 55

December Team

**VOLUNTEERS
REQUESTED**

CALL MIKE ARNTZ

694-4601

January Team

TO BE ANNOUNCED

Membership/Dues Information

By Gregg Cornell

Chapter 55 dues for 2005 will remain at \$25 and are due January 1, 2005. Please make your \$25.00 **check payable to EAA Chapter 55**. Please mail to:

Gregg Cornell, Treasurer
639 Orchard St.
East Lansing, MI 48823

Reminder--you must be a National EAA member in good standing to renew Chapter 55 membership.

EAA Board of Directors Meeting

Board of Directors Meeting – November 10, 2004

Meeting was called to order at 7:00 PM on November 10th. → Mike Arntz, Tom Botsford, Greg Cornell, Drew Seguin, Ernie Lutz, Bill Purosky, Renee Arntz, Doug Koons, Dave and Debbie Groh, Jack Toman, and Ken and Vickie Vandenberg were present → Treasurer's Report was approved. → The secretary's report was approved → Christmas Party reservations will be accepted through 11/27. See Greg Cornell. → We will plan for a fly-in event on August 20-21, 2005. We will approach CRAA for financial support. Dave Groh will work on getting the YAF B-17 here. → The chapter will donate \$100 in memory of Ivan Rowell. → EAA Headquarters would like to do an article on our flying contest. → Greg Cornell has cross-checked the Chapter 55 roster with national memberships and will notify members who are not in compliance. → Motion was made and carried to make Howard Gostnell an Honorary Member of Chapter 55 → Greg Cornell suggested we find an alternative placement for future Newberry Scholarship donations. → Debbie Groh updated on the CRAA Board meeting. The only news is the progress on the entrance road at Mason-Jewett. → The meeting was adjourned at 8:15 PM.

EAA Chapter 55 Business Meeting

Membership Meeting – November 13, 2004

The meeting was called to order at 9:33 a.m. → 71 members and guests present and two new members were recognized. → Secretary's report was approved → Treasurer's report was approved → The Christmas party will be held at the Veevay Township Hall again this year. Reservations must be made with Greg Cornell by 11/27. → A memorial service for Ivan Rowell will be held on November 22 at the Presbyterian church at Aurelius and Mount Hope. → The Great Lakes International Aviation Conference is coming up on January 21-22. We need volunteers to man the booth for free admission. See Bill Purosky → The Chapter 55 website is again up and running. Vicki Vandenberg is updating the member list and developing member profiles. → The 2005 Fly-in is scheduled for August 21-22 and we are working on funding and participation of the YAF B-17 and C-47. → Mike Arntz announced the decision to make Howard Gostnell an Honorary Member. → The motion was made and carried to continue Chapter 55 membership in the Mason Area Chamber of Commerce. → The access code to the Chapter 55 hangar has been changed. See Mike Arntz if you

don't know it. → The December meeting will include election of Board members. If you would like to run or nominate someone to do so please contact Mike Arntz. → Al St. George gave a presentation on his trip around various WWII Luftwaffe bases in Germany. → The meeting was adjourned at 10:41 AM



Al St. George, Guest Speaker



Seventy-five members lined up for breakfast. That's a new record for Chapter 55 meeting!

Tidbits

By Vicki e Vandenberg

Caught in the "55" Web

Please **DO NOT** use the online profile form. It is not working properly nor has it been revised to include the latest questions. See me if you would like a profile form to complete for adding or updating your information on the web site.

THE CHAPTER 55 - 2004 FLYING CONTEST:

Our first-ever Chapter 55 Flying Contest was held covering the period of 5/1/04 to 9/30/04. If you have not yet turned in your "Score Board", please get it to Mike Arntz prior to the start of our December 11th meeting !! Prizes will be awarded sometime thereafter.

A sample "Score Board" can be viewed on the web site along with the contest rules.

EMAIL ADDRESS ADDITIONS & CHANGES:

Over 77% of our membership can be contacted via email. Reminder - if you change your email address, please let me (Vickie) know. We will update the Membership and Newsletter Lists accordingly. Also, if you do not currently receive your newsletter via email and would like to, let Warren Miller know.

Notes from Cape Juby

By Terry L. Lutz, Chapter 55 Flight Advisor

November was a good month for working on my homebuilt project. After what seemed like months and months tangled up in miles and miles of wire, all the electrons necessary to run the airplane now have a wire to run through. I learned all about 9-pin D sub connectors, crimping tools, soldering, ground points, switches, and Molex connectors. It all had to be explained to me at least 15 times, but I think I finally “got it”.

Carl Franz came over on Nov 15th. We connected the battery for the first time, and turned the Battery Master switch on. Nothing. Nada. No click, but no smoke, either. Checked this, checked that, and discovered that I had the cables to the battery solenoid reversed. I had secured those wires at least 4 times in the last year, and had to undo them again to reverse the wires to the solenoid. I guess you know you’re finished with the wiring when you secure all the wires for the last time, whenever that will be.

With the wires properly run to the battery solenoid, I turned on the Battery Master switch and “click”, the Battery/Emergency Bus was powered. We could make the starter spin, and the fuel pump moved air instead of fuel with a clicking sound. Success! One thing I designed into the airplane was an Emergency Power Switch. If I open the red guard and move the switch to On, the battery solenoid is bypassed. The system worked exactly the way Carl diagrammed it a year and a half ago.

If I lose the alternator and end up on battery power, the master solenoid (when it’s wired right), will draw about 3 amps by itself. I can bypass that current draw using the Emergency Power switch, then reduce the loads manually and conserve battery power. Emergency Power is protected with a 20 amp in-line fuse. So if you try to use the starter on Emergency Power, you will blow the fuse and end up worse off than you started. Been there, done that, won’t do that in flight!

On Friday, Nov 15th, Roy and I installed the instrument panel with all the instruments installed, and brought up each system one at a time.

We started with all the items on the Battery/Emergency Bus. There was one problem there with the canopy warning light switch, which we quickly solved. Then we brought up the Instrument Bus using the instrument master switch/breaker, and checked all the instruments on the bus. Finally, we brought up the Avionics Bus with the avionics switch/breaker. Carl wired the harnesses for the two radios, the transponder, and the audio control panel in the summer of 2003. Everything played beautifully. We could transmit and receive on both radios, and the intercom was crisp and clear. The only problem we had was the wiring to the transmit buttons, which was quickly solved.



We tested both the elevator and aileron trim servos using the trim switch on the stick grip that I will use in the airplane, even though the sticks are not yet installed. The trim position indicators worked as advertised. We hooked up the strobes and nav lights, and tested the landing lights and wig/wag system using two old automobile headlamps. To test the night lighting, we turned off the shop lights and brought up all the internally lighted instruments, then turned on the 4 flood lamps that illuminate the panel and the consoles on each side.

As luck would have it, I mentioned the test to the guys at Beacon Aviation a few days later. I told them how I planned to wire the trim function on the sticks, and they told me about the RV-4 that was in the shop. That airplane has two of the “Infinity” stick grips. A problem has occurred where the front seat pilot is trimming in one direction at the same time the rear seat pilot is trimming in the opposite direction. This trips the switch/breaker that the trim system is wired through. In my airplane, this would blow a fuse that can’t be reached in flight, and would disable the trim system. So Carl suggested a 4PDT On-On switch (he explained it to me 15 times and now I “get it”). The switch will allow trimming from the front, or trimming from the rear, but not both. The switch will have a guard on it, and be located where the front seat pilot can reach it, but the rear seat can’t.

After all this wonderful stuff happened, and all the testing was performed and found to be working great, well, we tore it all apart. This is not a guy thing that we learned back when we were kids. OK, we’re still kids, but the next step in the process is to paint the instrument panel and build it back up again. I should have the panel back together sometime before you read this article.

Tim Martinson is probably going to ask me about this, so I thought I would get going on it. How does a DC-9 slide off the end of the 7251’ runway in Lansing? Good question. If you recall, we had gone from really beautiful fall weather to really awful winter-like weather in one day. And it was the worst kind of winter weather for flying: wet snow with a high moisture content. It makes it harder to see things outside, at night in the landing lights, because the flakes are so large. And the runway will be quite slippery compared to a dry snowfall.

When you know the runway is snow covered, and the visibility is relatively good, the pilot can usually pick the touchdown point to maximize stopping distance, lower the nose, deploy the thrust reversers, and begin aggressive braking with the anti-skid

system. But when the weather is at minimums in heavy snow, the situation is a lot different. If the pilot sees the approach lights at the 200' decision height, but no runway lights, the approach can continue to 100' agl, or until the runway environment is in view. Then the pilot must assess the touchdown zone, land, deploy the reversers and begin aggressive braking.

If the runway at Lansing is snow covered, the painted touchdown markings are covered. There are no touchdown zone lights at Lansing. So the pilot really can't tell if the airplane will touchdown close to the point that the landing performance numbers are based on. The pilot also has no real idea where the far end of the runway is, because it is simply not in view due to the reduced visibility. Distance remaining markers will likely be obscured by the falling snow. So the pilot has to do the best possible job of braking and hope that the runway friction is sufficient to stop the airplane.

So let's talk about the performance numbers. The current version of FAR Part 121.189 does not require performance calculations on a slippery runway, so the pilot doesn't even have a chart for it. All that is required is to do a wet calculation that goes something like this. The computed landing distance is 60% of the available runway length when the runway is dry, and allows the touchdown to occur roughly 1000' down the runway.

So if the runway is 7000' long, the airplane can stop with maximum braking in 4200' when the runway is dry. The remaining 2800' is for all the other variables: wind gusts, how soon the pilots pulls the thrust to idle, touching down long, and touching down fast. These are normally occurring touchdown variables. No two landings are exactly alike, which is why there is an oval shaped band of tire marks down every runway, instead of one giant rubber mark at the 1000' point.

If the runway is wet, the number expands to 115% of the computed value. So in the example above, the stopping distance would be 4560' and the runway would have to be 7600' long instead of 7000', or the aircraft weight would have to be reduced. Now if the runway is slippery, the pilot has to use all the runway remaining beyond the wet braking distance up to the end of the runway to stop. The landing would have to be perfectly in the touchdown zone, and at the proper speed to utilize all the runway. Which as I pointed out earlier, can be difficult when the weather is bad.

The airport guys have some responsibility here, too. They have to provide information to the pilot as to what the braking conditions are. The days of running a pick-up truck and slamming on the brakes, or asking a Cessna 172 pilot to provide a braking action report for a B737 are gone. At today's commercial airport, the operator has guidelines to clear the runway, apply a chemical deicer, measure the runway friction over each third of the runway, and provide that information to the pilot. It is a tall order. The goal is to clear and treat the runway to the equivalent of wet braking friction, at which point the wet stopping distance calculations apply, with the appropriate safety margins.

Well, the incident in Lansing could have been worse. Like the recent case where a Qantas (Queensland And North Territories Air Service) Boeing 747 exited the runway after landing long

and fast on a rain slick runway in Sydney, Australia. Due to the considerable run-off area available, the aircraft came to rest within the confines of the airport with slight damage to it's landing gear, and no injuries to passengers. Emergency vehicles responded in a timely fashion to assist. I have attached a photo which documents the entire incident.



So to everyone in the Chapter, have a safe and happy holiday season. Watch out for those slippery runways, and as always, don't forget to lend a hand to your fellow pilot when it's needed.

Young Eagles

By Renee Arntz

We have finished another year and once again attained our goals. I sent this information to headquarters and will be looking forward to seeing what they will be awarding those who have reached their goals. This is the fourth year in a row that we have accomplished what we stated we would do at the beginning of the year.

We will recognize those pilots and ground volunteers who helped us once again this season. I would like to thank everyone who participated and hope to have a better year in 2005. Happy Holidays. See you at the party.

