

CHAPTER 55 EXPERIMENTAL AIRCRAFT ASSOCIATION

JANUARY 2006



Meetings are the 2nd Saturday of each Month

Chapter 55 Hangar - Mason Jewett Field

Pres: Bill Purosky 214-2729 Vice Pres: Tom Botsford 663-1318 Treas: Sharron Hacker 623-6476

Sec: Del Johnson 676-2756 Editor: Warren Miller 393-9385

Climb and Maintain Flight Level 55

Happy New Year to all of you. As we face another year, we are ready for the challenges ahead. Our Chapter is in good standing with the National EAA Headquarters and the new officers are on record. Your association is financially solvent. So onward and upward we go in 2006.

There is one piece of business that we must attend to, to clear the air for the new year. As some of you may recall, our past president, Mike Arntz, wrote a self serving article in the December newsletter. Some of the members of the Board and most of the members of the Mason Aviation Day Committee insisted that the other side of this situation be presented. Many of the members of Chapter 55 do not realize the problems that our past president created over roughly the last two years. Your Board of Directors has kept you insulated from the monthly problems that they had to deal with to keep us running on an even keel. We are taking this opportunity to print a copy of the letter that was sent to Mike about his last, but not only, big fiasco. The membership needs to know that their organization was very successful in spite of Mike's presidency. This is the advantage of having a strong Board with excellent leadership skills with a strong Vice-President who took over the day to day activity of the Chapter. Please do not hesitate to contact any of the Board Members or the Committee members if you are unclear about the above situation and the following letter. Please turn to the last page to view the above mentioned reply letter to Mike.

I am looking forward to serving the Chapter in the next two years.

Bill Purosky

BREAKFAST W/CHAPTER 55

January Team

Kyle Bradford
Ken Drewyor
Gordon Hempstone
Steve Kent
George Moore
Dennis Swan

February Team

Rick Ferrell
Russ Hilding
Connie Kowalk
Pete Mulliner
Tom Schroeder
Phil Tartalone



Greasy Side Up

December Cooks:

Doug Koons, Bill Purosky and Greg Hover

JANUARY SCHEDULE

Board of Directors' Meeting

Wednesday, January 11, 2006

Chapter 55 Meeting

Saturday, January 14, 2006

8 - 9 Breakfast / 9:30 Chapter Meeting

EAA Board of Directors Meeting

Board of Directors Meeting – December 7, 2005

SUMMARY OF MEETING MINUTES

Board of Director's Meeting – December 7, "A day that will live in infamy" 2005

The meeting was called to order at 7:00 PM → Attendees: Tom Botsford (presiding), Gregg Cornell, Doug Koons, Jack Toman, Gary Long (thanks for taking minutes), Dave & Debbie Groh, Ken & Vickie Vandenberg, Connie Kowalk, Dick Bacon → Treasurer's report was approved → Dick Bacon reported on officer nominations. At the time of the meeting we are still lacking a candidate for Secretary. → Doug Koons reported that the new ridge cap is working fine. → Bill Purosky reported on the Great Lakes International Aviation Conference scheduled for January 20-21. He's still looking for volunteers to set up and man the booth. Volunteers will get free admission to the event → The Chapter 55 Christmas party is scheduled for Saturday and 63 people have tickets. Should be a nice gathering → the Board voted to increase chapter liability insurance from \$1,000,000 to \$2,000,000. That's a lot of cheese. → Kyle Bradford was voted lifetime member of Chapter 55 → Shortly thereafter the meeting was adjourned.

EAA Chapter 55 Business Meeting

Membership Meeting – December 10, 2005

Meeting called to order at 9:30. → There were 44 members and guests present. → The Secretary's report was approved → Treasurer's report was approved → Nominations for Chapter 55 officers were closed. There was only one candidate for each office so a ballot was not required. The new Officers for 2006-2007 are as follows:

| | |
|----------------|-----------------|
| President | Bill Purosky |
| Vice President | Tom Botsford |
| Treasurer | Sharon Hacker |
| Secretary | Delbert Johnson |

Congratulations and welcome to all. → Certificates of appreciation were awarded to officers → Debbie Groh was selected as Member of the Year. → Kyle Bradford was recognized as a Lifetime member → Bill Purosky announced the need for volunteers for the Great Lakes International Aviation Conference → Winners of the Chapter "Fly-a-Member" contest were announced. Dave Groh took first place and Ken Vandenberg was second. → Elliot Seguin gave a presentation on his experiences working as an intern in Mojave California last summer. → The meeting was adjourned at 11:00.

After 6 years, This is my last edition of meeting minutes for Chapter 55. Thanks for your patience and the wonderful times we've had. I look forward to more good times on the other side of the table. ~ Drew



Guest speaker, **Elliot Seguin** had a lot to talk about his summer in the Mojave Desert. An engineering student, Elliot was able to land an intern job working on projects involved directly with Burt and Dick Rutan, the WhiteKnight and SpaceShipOne. He also worked with the Nemesis and Sport Class racing planes. Elliot presented a nice slide show and was very enthusiastic about his adventure.

Kyle Bradford, one of the last founding members of Chapter 55 was made a Life Time Member at the recent Board of Directors meeting. Kyle, a retired 747 Airline Captain lives on a farm near Eaton Rapids where he has a private airstrip and builds various aircraft to include several Piétonpols and recently a Dormoy "Bathtub".

TIDBITS, January 2006

By Vickie Vandenberg

DON'T FORGET = EUCHRE TOURNAMENT – JANUARY 14TH, 2006:

The date has been set: Saturday; Jan 14th – probably start dealing the cards about 7:00pm.

Bring a partner or arrange to team up with someone. We hope to drum up some prizes for first, second, & third place winners.

Would anyone be adverse to each player kicking in a dollar for a prize jackpot?? As always, munchies welcome but not required. Pop and water will be available from the chapter refrig for a donation.

This will be great fun; a wonderful opportunity to mix & mingle and chase the winter blahs away!! RSVP to Vickie Vandenberg or Jim Spry (we need to figure out how many card tables & decks of cards will be needed).

CHRISTMAS PARTY:

What a great time !! Did someone leave their White Elephant gift behind?? Contact me to claim.

FOR SALE - KIT PLANE IN PROGRESS:

Avid Magnum. Fuselage & wings partially done with some modifications. Has firewall forward with motor mounts for

Lycoming but no engine; no avionics. \$11,000.00 or BO. For details contact Ken Vandenberg; 517-589-5051 or kv_vand@core.com.

New Surplus Aircraft Hardware

Save 30-50 %

Dzus's, Dzus springs, nut plates, plumbing fittings, spark plugs, bolts, nuts, clevis bolts, clamps, cable ends & fittings, prop clamp bolts, Pratt & Whitney tools and many other hardware items from WWII.

Examples:

| | |
|-------------------------------------|-----------|
| Nut plates aluminum 10-32, 832 | .50 ea. |
| FA6 1/2-45 Dzus, fresh plating, | 1.75 ea. |
| Stearman Dzus spring | .50 ea. |
| Continental rocker hose clamps | 1.50 ea. |
| 4B2S spark plug (Lycoming) | 5.00 ea. |
| 417S spark plug (Continental) | 5.00 ea. |
| Prop clamp bolt (Hamilton, Mcauley) | 20.00 ea. |

David Groh Phone 517-676-4416 day
Yesteryear Ford Fax 517-676-3485
4322 Curtice Rd
Mason, MI 48854



Chapter 55 Member of the year was **Debbie Groh**. She has been the main support person in various chapter projects and events to include Mason Aviation Days and the Christmas party, etc.



Notes from Cape Juby

By Terry L. Lutz, Chapter 55 Flight Advisor

When hangar flying turns to the subject of stalls and loss of control, the discussion often references flight at a critically low airspeed, when perhaps it should be referenced to a critically high angle of attack. It's understandable, because every airplane has an airspeed indicator, but few airplanes have angle of attack systems to tell the pilot when the airplane is dangerously close to the stall.

The Navy has used angle of attack, or AOA, for many years to get the lowest possible speed and optimum pitch attitude to land aboard a carrier. Angle of attack systems were used in some Viet Nam era military fighters, because along with the control authority to generate high g-forces in dog fight situations came the possibility of loss of control at high AOA. Modern aircraft like the F-16 and F-18 actually use angle of

attack as an input to their fly-by-wire control systems to help stabilize the airplane during air combat maneuvering.

The good old F-4 Phantom II was a terrific airplane for carrying weapons to the target and going fast at low altitude, but it was a real challenge for the pilot in high angle of attack situations to avoid going out of control. And I mean wildly, unpredictably out of control. Many F-4s were lost over the years because the airplane departed controlled flight. It would often take as much as 5,000 to 10,000 feet of altitude loss to recover, and ejection was recommended at 10,000 feet above the ground. Do the math. You didn't have many options.

At the Air Force Test Pilot School, we gave students a check ride in the F-4 involving photo-safety chase techniques. This included maintaining precise position on another airplane while the simulated test airplane went through some typical test scenarios. The maneuvers included a supersonic run, wind-up turns, and stalls. The check ride was flown as a two-ship of F-4s. For the first half of the flight, one of the airplanes would be the simulated test airplane, while the student in the other F-4 was given the check by the instructor in the back seat. Then we switched roles and repeated the maneuvers to check the other student.

I was in the back seat of an F-4 with Paul Deehan in the front. Paul had a B-52 background, and was one of our better student test pilots. He flew the chase position first and had completed his check ride successfully. As the simulated test airplane, we were setting up for a simple approach to a 1g stall at 17,000 feet (ground elevation 2300 feet, do the math...). The F-4 had a great angle of attack system, with indexer lights, an AOA gauge, and an aural tone that we all relied on. As we began to slow to the stall, I was making sure that Paul was providing a predictable target for the other student. He was maintaining altitude, slowing at 1 knot per second, and keeping the ailerons centered. I took a peak outside to see how the chase was doing, and in the next instant, the airplane we were flying sliced to the left and departed controlled flight.

There had been no warning. No buffet at all (this is mentioned in the flight manual as a characteristic of some airplanes), and more importantly, **no angle of attack warning!** I told Paul "I've got it", and ran the bold face memory items: Stick – forward, Aileron and rudder – neutral, If not recovered – maintain full forward stick and deploy drag chute. The airplane went around one full turn and I was just about to ask Paul to pull the drag chute handle (located in the front), when we got light in the seat as the airplane unloaded. We bottomed out at about 12,000 feet, so it took almost 5,000 feet to recover.

There wasn't anything wrong with the airplane, but the AOA system had failed. The sensor on the nose of the F-4 was a cone about 4 inches long with slots cut into it that caught the airflow to rotate the cone as angle of attack changed. When we got back on the ground, we found that the cone was stuck in a low angle of attack position by a piece of sand inserted by the desert wind.

While the average light airplane is not a fighter, the pilot should always know how close he/she is to the stall angle of attack. In

the absence of natural stall warning, certified airplanes will have some other device to warn the pilot. This can be a horn, or a light, or some combination of the two. My favorite was the simple horn from the older Cessna 150. No more than a party horn with a little plastic funnel in front to channel the air, it gave off a distinct and rather annoying noise as you approached the stall. That is until some bug smashed its way through the screen covering the air inlet, and plugged it up!

Lack of stall warning can affect us in homebuilts, mainly because there is no certification criteria in place to provide for stall warning. Other pilots had told me that their RVs had very little natural stall warning, and it wasn't until I had flown some of them that I realized what they were saying. So you can have an airplane with excellent flying qualities, one that you are comfortable and experienced in, and still find yourself in a high angle of attack situation and not even be aware of it.

Last month when I was in Oregon, Jerry VanGrunsven insisted that we go flying in his RV-8A so he could show me his AOA system. It is a very simple system, and works by measuring the difference in air pressure between the upper and lower surfaces of the wing. It is manufactured by Advanced Flight Systems, and you can see the display that it uses in any issue of Sport Aviation. We did some approaches to stalls at altitude to see how the display changed with changes in angle of attack, and listened to the audible "angle-angle-push" message close to the stall. Jerry demonstrated the stall/spin scenario, and the nose down attitude that develops is rapid and more than a bit scary. With the AOA system, there was plenty of warning. Now it was time for some pattern work.

We found Twin Oaks Airport, home of the Portland Chapter of EAA, and descended into the traffic pattern. The landing procedure at Twin Oaks is rather interesting. You land opposite to departing traffic. So we entered the pattern from a crosswind leg and began slowing and configuring for Runway 36. A Cessna 180 called and said he was departing on Runway 18. Jerry told me that he would start a left turn after takeoff. I started the base turn and noted the 180 just lifting off. It seems we have a conflict developing here....heart pounds a little faster....strange airport....flying someone else's airplane....trying to fly AOA.... "He's gonna turn," said Jerry. We got just a little closer, and sure enough, he turned left and out of our way.

Then I could focus on the AOA system. Jerry's visual indicator is up on the glare shield. As you slow down and begin to increase angle of attack, the chevrons in the lower part of the display begin to disappear. This is excellent visual cueing to the pilot. At the approach AOA, the chevrons disappear up to a small "doughnut". If you keep it on the doughnut, your AOA (and therefore speed) is perfect for the approach. After just one or two peeks back at the airspeed indicator, I was able to focus only on AOA, and made a completely normal landing. We rolled out and turned on a high speed turnoff that led right to the departure point for a takeoff in the opposite direction.

We reset the flaps, ran a quick checklist and were off again on Runway 18. I got the flaps up and was nicely accelerating, when Jerry said "Make sure you turn left at the creek". Hmmm. If he had told me the C180 was going to turn left at the creek, I would have felt a LOT better on the first approach! I flew another approach to Twin Oaks, and once I jumped mentally to the flow pattern they have there, it seemed perfectly normal. There was a Cessna 140, a Bonanza, and our RV-8A all mixing in quite nicely.

On the second approach, I used only the AOA system. I am amazed at how stable the display is. The chevrons do not blink on and off, or jitter in any way. And it produces the information essentially with no moving parts, so it should be very reliable. Finally, if you get to an AOA very close to a stall, you will get an audible "angle-angle-push" before anything bad happens. When you think about it, the airspeed indicator only tells you how close you are to the stall in level, unaccelerated flight. In all other phases, climb, descent, turns, it is only an approximation; you really don't know how close you are. An AOA indicator will tell you how close you are to the stall, in every case.

There are several other advantages to an AOA system as well. The proper AOA is shown whether you are heavy or very light. It would be difficult to come up with an exact compensation for weight if you used just airspeed. Landings become totally consistent. Jerry told me that the perfect landing is when the audible "angle-angle-push" comes on right at touchdown. You can get into short fields with the confidence that you are getting the best performance possible. The AOA system will show you the best climb AOA, and the best glide AOA. And for those would-be fighter pilots among us, it will keep you from falling out of a loop, stalling at low speed in formation, or stalling during any other crank and bank maneuvers where your attention is diverted outside.

But the best advantage of an AOA system is that it will give you a warning that avoids a stall/spin situation in the traffic pattern. It happens. Jerry lost some friends recently in this situation, and I watched two people perish at Oshkosh some years ago, after losing control in the base turn. Remember, homebuilts are not certified airplanes, and they may not have enough natural stall warning to keep you safe when close to the stall angle of attack. An AOA system is probably the best piece of safety equipment you can purchase for your airplane, and I highly recommend them for everyone. I've got one in my RV-8, and I'm going to use it all the time. So are you just going to sit there stalling about it, or go get one? Do it!! It's a lot better investment in your future than a new radio, autopilot, or GPS.

It's still winter out there, so be careful with all your operations and don't let Mother Nature box you into a corner. And don't forget to help your fellow pilot when they need it.

December 10, 2005

Michael Arntz, President
EAA Chapter 55
655 Eden Road
Mason, Michigan 48854

Dear Mr. Arntz:

We, the undersigned members of EAA Chapter 55 have been following your monthly column in the *Wingtips* newsletters since September 2005, with less than enthusiasm. We are now responding, as concerned chapter members.

Please review **your** attached e-mail response to another undisclosed EAA member on 10/11/05. Since the response is verbatim, you have finally given us the opportunity to present **all** the facts surrounding the more than *simple disagreement* you reference in the e-mail regarding Mason Aviation Days (MAD) 2005.

And yes, your leadership abilities, professionalism, integrity and dignity are under scrutiny.

Be honest with yourself, ALL the MAD Planning Committee walked out of the July 19, 2005 meeting because you did not engage in respectful communication, but rather you made outright attacks on members, of the Planning Committee. Actually you started Monday, July 11, by reprimanding Connie Kowalk for securing 3000 place settings (plates, flatware, 2 sizes cups) from Dart Container Corporation in exchange for a B-17 "20 minute press ride."

Remember, the press ride/donated services exchange issue was determined, by the MAD Planning Committee (2 months earlier) to be a viable option for Chapter 55, to obtain valuable commodities for use at Mason Aviation Days. So then, why did you continue your relentless attack on Doug Koons via e-mail on 7/14/05? He secured 2 ½ weeks free advertising wall space from Hart Welling Drilling, again in exchange for a B-17 "20 minute press ride."

Keep in mind a "20 minute press ride" if assigned a monetary value would be \$176.00 (\$400.00 divided by 45 minutes = \$8.8/minute, \$8.8 x 20 minutes = \$176.00). Now if Chapter 55 had to purchase, at retail value the Dart donation, the actual cost would have been \$626.00. \$626.00 minus 176.00 = \$450.00. That's \$450.00 savings for Chapter 55. And if Chapter 55 had to purchase billboard advertising for the 12' x 25' banner, it would have cost \$750.00 (12' x 25' poster panel advertising from Adam's Outdoor Advertising is \$300.00/per week, \$300.00 x 2 ½ weeks is \$750.00. Chapter 55 paid 176.00 or one "20 minute press ride."

But realistically, Chapter 55 had no cost incurred for the "press rides," as that was included in the donation from Capital Regional Airport Authority. So Chapter 55 realized a savings of \$1,376.00 (\$626.00 + 750.00). The savings add up quickly, don't they?

And concurrent with the above was your e-mail attack on Vickie Vandenberg that also occurred on 7/14/05. We will be happy to supply a copy of that too, if you desire. The above incidents are more than just a *simple disagreement* as you eluded to, in paragraph four of the attached e-mail.

But the "straw that broke the camel's back" took place at the 7/19/05 MAD planning meeting, with guests present, you stood up at the beginning of the meeting and started unfounded criticism for prior approved planning committee action. Rather than be subjected to your rhetoric the Planning Committee members walked out. The e-mails you sent to the remaining Chapter 55 members that followed the "*planning committee walk out*" were not truthful and extremely self-serving. With no planning committee and less than one month from the event, it would have taken a miracle for you to make Mason Aviation Days 2005 occur.

Quite frankly you need to "practice what you preach." Your "do as I say, not as I do" approach does not foster dignity, respect and trust as guiding principles for an EAA chapter president. **YOU GET THE RESPECT YOU GIVE.**

The ability to engage in continuous self-reflection, self-improvement and chapter needs, rather than egotistical personal priorities would have better served EAA Chapter 55.

Your decision to **not run** for EAA 55 Chapter President, is "saving face," and a one of your better decisions this year.

In earnest,













