

CHAPTER 55 EXPERIMENTAL AIRCRAFT ASSOCIATION

April 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 Asst Treasurer: Doug Koons 676-5001 Editor: Warren Miller 393-9385
Web Manager: Craig Tucker Web Address: www.eaa55.org

Climb and Maintain Flight Level 55

Hi Members,

About 43 people took the trip last month to the Airzoo. Four were from Chapter 1056 and the rest from Chapter 55. I think that I can speak for all on the trip as far as the great time we had. Tom Schroeder's dad, Victor, met us as we arrived and stayed with us for the entire trip. Vic works there as a docent. He walked us through the old museum first, followed by the restoration area and finally the new museum. His knowledge of the museum was excellent and he knew each airplane and some of the history behind each of them. I think the highlight of the trip for me was getting to see the only P-55 in existence. It was in the restoration area and was not available to the normal visitor. So when you travel with EAA Chapter 55, special treatment is sometimes given and we loved it.



So now, the members need to start thinking of our next winter outing and where we need to go as an EAA Chapter. Any and all suggestions will be appreciated. Give them to me or to any other Board member.

Bill Purosky, President

April Schedule

Board of Directors' Meeting

Wednesday, April 8, 2006

EAA Hangar - 7 PM

Chapter 55 Members' Meeting

Saturday, April 11, 2006

Breakfast 7:30 until 9 AM

Meeting 9:30 AM

BREAKFAST W/CHAPTER 55

April Team

Larry Coryell

Robert Harter

David James

George Spencer

Don McAlister

Richard Houghton

May Team

Robert Beck

Jim Cushing

Andy Hartsuff

Gilbert McKessy

Ray Pruett

Jim Spry

Chris Myers

EAA Board of Directors Meeting By Del Johnson

Bill Purosky called the board meeting to order at 7:00pm. Attendees: Bill Purosky, Ken Vandenbelt, Dave & Debbie Groh, Gary Long, Jack Toman, Doug Koons, Tom Botsford, Deanna McAlister, Connie Kowalk, Sharon Hacker (by Proxy), Ted Lakin and Del Johnson. → The minutes were approved as published in the newsletter. → Doug Koons gave the Treasurer's report. For the month of February there is a net

income of \$134 and a year to date net income of \$523. This includes the payment of the bus rental. It was also reported that Sharon Hacker had sent invoices out to members that have not renewed their Chapter membership. The Treasurer's report was approved. ➔ Bill Purosky reported that thirty people, including four people from Chapter 1056, had signed up for the bus trip to the Kalamazoo Air Zoo. ➔ By-law proposed changes were printed in the March newsletter. ➔ Rick Farrell terminated his hanger lease effective February 28th. Doug Simons will likely use the space vacated by Rick. Richard Wilkie will move into the Chapter's hanger when Gary's plane moves out. Current hanger rate is \$45 per month. ➔ Public relations initiatives were discussed which included having the Chapter work with the Mayor of Mason to support some civic activity, offer to host a Mason Chamber of Commerce breakfast meeting at the airport and joining forces with Spartan Wings to sponsor an outdoor orchestral concert at the airport. ➔ Bill Purosky reported on the costs for Tee shirts and hats to be sold at Chapter events. Debbie Groh volunteered for her and Vickie to work on a design. ➔ A motion was made and supported to spend up to \$200 for the dawn patrol event advertising. ➔ The Mason Aviation Day breakfast will be served between 7:00 to 11:30 am with lunch/dinner to be served from 12:00 to 5:00pm. We will look into serving corn on the cob instead of cole slaw. ➔ A motion was made and passed to earmark \$7, 500 for Mason Aviation Days - 2007 since we are expecting to receive a reduced amount of support from the Capitol City Airport Authority. ➔ The Chapter's web site was discussed with focus on needed changes. Del Johnson offered to provide editorial support for the member profiles and member projects sections. It was agreed that the member profiles should be moved into the member only section of the web site. ➔ Ted Lakin suggested that steps be taken to control private conversations that go on during the Chapter meetings. ➔ Tom Botsford will look for three non-board members to conduct the Chapter audit. ➔ The meeting adjourned at 8:55 pm.

EAA Chapter 55 Business Meeting By Del Johnson

The meeting was called to order at 9:27am. ➔ The minutes of the February meeting were approved as published in the newsletter. ➔ Doug Koons reported that the Chapter had a net income for February of \$134 and \$523 net year to date income of \$523 with a balance of \$18,386.68. ➔ A motion was made and approved to accept the Treasurer's report. ➔ Jim Palmer Spoke about Howard Gostnell's involvement in the early history of the Chapter. Howard passed away on February 20th. Bart Smith suggested that we get a picture of Howard and put it up in the Chapter meeting room. ➔ Jan Palmer made a motion to accept the By-laws as written. Thirty-six eligible voting members were present. Jim's motion, to accept the By-laws as written, passed unanimously. ➔ The meeting was adjourned at 9:37 am.

TIDBITS, April 2006 By Vicki Vandenberg

MEMBERSHIP RENEWALS:

For the few who have not renewed for this year, our past by-laws allowed that any member who failed to remit their dues within 90 days of the due date (1/1/06) shall be considered removed from the Chapter membership. Therefore, any who remain unpaid following our April 8th meeting will be removed from the newsletter and membership lists.

CHAPTER 55 LIBRARY:

The library continues to grow thanks to the generosity of fellow members like Bart Smith who donated a great collection of VHS tapes, and Steve Houghton & Don Chubb for their monetary contributions, and all the others who have brought things in. We also thank Doug Koons' brother for the addition of our second bookcase and thanks to all the members who participate in the 50/50 drawings at meetings. (The chapter monies fund additional purchases to fill those bookcases!!)

It would be great if the members who have read any of the material would compose a little "book review" for publication in the newsletter ... just drop a note to Warren Miller with your thoughts.

MICHIGAN AVIATION AERONAUTICS TEACHERS WORKSHOP – MAY 20TH 2006:

The workshop runs from 8:00am until 4:00pm in the Aeronautics building at Capitol City Airport. We will need 4 to 8 members to man the EAA booth for various periods during the day. If interested, please contact Bill Purosky (214 2729 cell). We would also like to have some of our EAA member aircraft on display. Teachers will visit the exhibits and members will need to be on hand to offer information and answer questions. Ramp space is available adjacent to the Aeronautics building and there may be some hanger space available. Please contact Tom Botsford if you would like to bring your plane in for display.

YOUNG EAGLES RALLY - SATURDAY JUNE 10TH, 2006:

Mark your calendar for our first YE rally; scheduled for 10:00am to 4:00pm. We are still looking for a Young Eagles Coordinator. Contact any member of the Board if interested. We will train you!

MASON-JEWETT AIRPORT OPEN HOUSE – SATURDAY JUNE 10TH, 2006:

Connie Stewart will have an Open House at the terminal concurrent with our YE Rally. This will be a great day to meet with people from the Mason community and showcase our wonderful airport.

DAWN PATROL PANCAKE BREAKFAST FLY IN/DRIVE IN – SUNDAY JUNE 11TH, 2006:

Our "All-U-Can Eat" pancakes will be served from 7:00am to 12:30pm.

YOUNG EAGLES RALLY – JULY 8TH, 2006:

Our second YE Rally is scheduled to be from 10:00am to 2:00pm

THUNDER OVER MICHIGAN – YANKEE AIR FORCE 2006:

This year's event is scheduled for Saturday August 5th & Sunday August 6th at Willow Run Airport, Bellevue, MI. The theme will be British aircraft and you won't want to miss it!! Additional info can be found at <http://yankeeamuseum.org/airshow/>

CAPITOL AREA BALLOON RALLY – SATURDAY AUGUST 19TH, 2006:

Our chapter has volunteered to help MACC at the Trapshooters range on Saturday. Details pending.

MASON AVIATION DAY – SUNDAY AUGUST 20TH, 2006

Our "All-U-Can Eat" pancakes will be served from 7:00am to 12:30pm and our famous grilled steak dinner will be delighting customers from 1:00pm until 5:00pm.

MICHIGAN AIR TOUR – 2006:

This year's event will be September 7th thru September 10th, 2006 and is called the "Upper Peninsula Wilderness Tour. Info and registration forms will be on the table in the meeting room or you can email me for a copy.

EAA CHAPTER 55 CHRISTMAS PARTY – DECEMBER 9TH, 2006:

We will return to the Vevay Township Hall; Eden Road; Mason for the 2006 party. Still looking for someone(s) to organize and plan the evening.

EAA AIRVENTURE VIDEO CLIP:

If you have high speed Internet access, you might want to check out the little video titled "You Gotta Be There" on the Airventure website (upper left-hand corner). The film clip runs in fast-forward but if you watch real carefully, about in the middle, you will catch some footage of a plane from our very own Mason-Jewett Airport!!

MICHIGAN ANTIQUE AIRPLANE ASSOCIATION:

I have some membership applications and will leave them on the meeting room table for anyone who is interested.

DO YOU KNOW SOMEONE INTERESTED IN JOINING THE FUN AT EAA CHAPTER 55?

If you do, we always have a supply of EAA Chapter 55 Membership applications, along with national EAA membership applications, on the window shelf by the TV in the meeting room. The forms contain info on dues amounts and where they can be sent.

GREAT LINKS ON THE WEB:

The MDOT Aviation Calendar will be a "must do" link this year since it does not appear that there will be funds available to print and mail the flyer listing the summer Dawn Patrol events. Be sure to check this site for the latest info to answer the question "Where shall we fly this weekend??" <http://www.mdot.state.mi.us/aero/calendar/ae.cfm>

Fly-Ins.com is also a great reference site – not only for fly-ins but all types of aviation related events and museums. You can set your own parameters and preferences. But, the best part is that you can sign up for automatic email notification of events per the

parameters you determine and an email is sent to you with information of the specific event so you don't have to keep checking the site.

<http://www.flyins.com>

Aero-News is another good site. Here is where you can sign up to "Subscribe" and you will receive the daily e-newsletter "Propwash". They also have an events calendar for reference.

<http://www.aero-news.net>

CLASSIFIEDS:

FOR SALE – BARON:

1976 Baron BE58P. Pressurized and loaded with new avionics. Contact Dan Schiffer; email danschiffer@comcast.net

FOR SALE – T6 TEXAN:

1942 T6 Texan/SNJ5. Original with new engine; very good condition. Contact Dan Schiffer; email danschiffer@comcast.net

FOR SALE – BRUSH HOG:

DR 15hp walk-behind Brush Hog. Less than 30 hours use; very good condition. \$1,500.00. Contact Dan Schiffer; email danschiffer@comcast.net

FOR SALE - YANKEE AIR FORCE "THUNDER OVER MICHIGAN 2005" DVD:

This DVD was professionally produced and truly spectacular since it features the largest gathering of air worthy WWII heavy bombers since the end of the war. Only \$25.00. Contact Debbie or Dave Groh.

FOR SALE – AVON PRODUCTS:

For a copy of the latest brochure, contact Deanna (McCreery) McAlister at 517-596-2506.

WANTED – DOPE:

Need 15 gallons of clear nitrate or bueaturate dope. Contact Kyle Bradford; 517-663-3083

WANTED – PIPER CUB OR SUPER CUB:

I am looking to purchase an award winning Piper Cub or Super Cub. Contact Dan Schiffer; email danschiffer@comcast.net

HELP WANTED –

Sub-Editors for EAA Chapter 55 Web site material. Chapter 55 needs for an Editor for each of the following sections: Member profiles; Project profiles; First flight profiles, Veteran profiles, and Member memorials. Contact Vickie Vandenbelt.

HELP WANTED –

Member (or group of members) needed for each of the following: Coordinate the June Dawn Patrol; Coordinate the August Mason Aviation Day; and Coordinate the 2006 Christmas Party. Contact Bill Purosky.

**WE COULD HAVE INSERTED YOUR AD HERE !!!
Contact Vickie for next edition!!**

Notes from Cape Juby

By Terry Lutz

One of the interesting things I did during my time at Edwards AFB was an assignment as the Landing Field Support Coordinator for the Space Shuttle program for missions STS-3 through STS-6. I sat in the NASA Dryden Control Room with all these large TV screens and more telephone buttons than you could count. Astronaut Deke Slayton was frequently the guy on my left. If NASA needed anything from Air Force helicopters to Security Police, I was the “go to” guy. It was fascinating work.

My boss was a guy named Bob Hoey. Bob had been an engineer during the X-15 program and later the X-20 Dyna Soar. It was his job to sift through all the data NASA could provide about the aerodynamics, heating characteristics, and maneuver capability of the Space Shuttle. He provided me with many insights as to stability, control, and heating during the entry profile. One day we were going over some data and Bob stopped and said, “Hey, come on I want to show you something”. We went out to a storage building behind the one we were working in, and there was a wooden crate about 10 feet long. Inside was wind tunnel model of what appeared to be the nose cone of a missile; only this nose cone had very narrow wings along its body.

Bob explained that some R&D people were working on a single seat reconnaissance space craft that would be launched on either low orbital, or suborbital missions. The purpose of the model, which had a length/width ratio of about 20:1 was to verify the aerodynamic data for subsonic flight and landings. I learned later from articles in some of the aerospace press, that the University of Utah was also working on the concept. The spacecraft was to be a rapid response reconnaissance vehicle which would either go into low earth orbit, or fly a “skip profile” through the atmosphere. It would dip low enough in the atmosphere to do its reconnaissance work, then like a stone on a pond, it would skip back into space. This possibility was first conceived by the Germans during WWII, who sought to use the capability to deliver weapons to the U.S. The concept was also used by the Europeans in a design called Sanger, which was studied at about the same time as our National Aerospace Plane.

Some years later, I was talking with a fellow test pilot named Rogers Smith, who at the time was flying the SR-71 at NASA Dryden. He related a story about flying from Edwards to White Sands and back. He asked his back seater, flight test engineer Marta Bohn-Meyer, to see what the controllers at White Sands were showing as their groundspeed and altitude. The controller replied that they were at 3500 feet per second and 129,000 feet. Both Rogers and Marta knew that wasn't correct. When asked again, the rather flustered controller replied, 2450 feet per second and 81,500 feet. They both knew that there was another flight above them, using their flight as a cover for a classified program.

Is there any significance or connection between these two stories? I didn't think so until I opened the March 6th issue of Aviation Week and Space Technology. Over several pages, they reported on sightings in the mid-1990s of a mated pair of vehicles. The larger vehicle was configured like the XB-70, with a highly swept delta wing and canard surfaces for pitch control. The smaller

vehicle was a long, slender single seat space plane that could be carried underneath the larger vehicle. The launch concept was to climb as a mated pair to 100,000 and Mach 3, then launch the space plane. It was the two-stage-to-orbit (TSTO) concept that had long been sought.

The interesting part is what precipitated the need to develop the space plane in minimum time using multiple aerospace contractors with Lockheed as the prime (as you may easily have guessed). The reason was the explosion of the Space Shuttle Challenger in January 1986. The reason that Bob Hoey was working as head of the Office of Advanced Manned Vehicles was so that the Air Force could begin mission planning for military Space Shuttle launches from Vandenberg AFB. These were to be short notice launches in polar orbits to get reconnaissance coverage of the former Soviet Union. This cannot easily be done from Florida due to orbital inclination, which determines the maximum latitude overflown by the Shuttle. Vandenberg launches would put the Shuttle in polar orbit, and the missions were planned as “once around”, landing again at Vandenberg on this beautiful runway the Air Force built just for that purpose. The problem was that the earth rotates during that single orbit, and the Shuttle would have to fly cross range about 1100 nm to make it back to Vandenberg. It would require a continuous, hard turn, once the Shuttle was back in the atmosphere.

When Challenger exploded, the Air Force realized that further development of the Shuttle for military use was uncertain. The SR-71 was almost retired, and they immediately brought some airplanes back into operational use. Then, about 2 years later, the SR-71 was retired for good. Something else had taken its place, and it wasn't the Shuttle. It's kind of what we always thought: if the SR-71 is retired, there's something even better out there to replace it.

Aviation Week reports that a program called Blackstar was developed by Lockheed, using technology and actual materials developed for the XB-70. The mission pair was called Blackstar, with the larger vehicle called SR-3, and the space plane called XOV, for “experimental orbital vehicle”. From multiple industry sources, Aviation Week reports that the SR-3 was roughly 200 feet long, with a planform similar to the XB-70. Canards extended from the nose and could sweep both forward and after to counter changes in center of gravity. Vertical surfaces were mounted on the wingtips, canted slightly outward. It had at least 4 engine ports, separated as two banks on each side of the centerline. The engines were very loud (and for that matter, so were the engines on the XB-70). The SR-3 was thought to be capable of high supersonic speeds at altitudes above 90,000 feet.

There were thought to be two XOV designs, a small one and a larger one. The smaller was 60-65 feet long and could have been operated both manned and unmanned, with a crew of 2. Those in industry mention that it was a “very successful program”. The larger XOV was 97.5 feet long (amazing how accurate those estimates are...) and had a bulky vertical fin that doubled as a pylon for carriage aboard the SR-3. The only visible control surfaces were flap or drag-type panels (you might call them paddles). The section forward of the cockpit was

broad and gave a shark nose appearance for additional pitching control at higher angles of attack.

The belly of the orbiter appeared to be contoured with channels, or riblets, to direct the airflow into a series of ducts to direct flow to the engines and provide air help dissipate aerodynamic heat build-up. It is believed the orbiter was powered with linear aero spike engines. Lockheed engineers stated that the engines “had history” (this was in reference to the linear aerospace engines later proposed for the Lockheed X-33 Venture Star program). Engineers at McDonnell-Douglas in St. Louis said the structure of the orbiter was made from advanced composite materials. Skin panels were 40 feet long and 16 feet wide, yet could be picked up easily by two people. They were stacked together and machined to shape. It was incredibly strong, and would handle very high temperatures. The project proceeded slowly until a breakthrough in fuel technology. The fuel was believed to be a boron-based gel, about the consistency of toothpaste.

The orbiters were carried by 3 specially modified “fat” C-5s. The C-5s were listed on NASA’s inventory, although they did not officially exist. The third C-5 had a red “CL” on the tail, and was thought to be an asset of the CIA. All three airplanes were thought to be retired just a few years ago.

There were several credible sightings of these vehicles, mostly at the prime recovery bases at Holloman AFB, and Kadena AB, Okinawa. In 1994, an F-15 pilot spotted one being unloaded at Holloman and using binoculars was able to confirm many of the features mentioned earlier. Another landed at Kadena and the base was locked down. A few days later, one of the fat C-5s came in to pick it up. There were some civilian sightings, one in Doylestown, PA in 1993, and another in Salt Lake City in 1998. Both confirmed the configuration of the mated pair of the SR-3 and XOV.

While we may never know the extent of this program, or why it was eventually drawn to a close, one thing is certain. It did exist. It was a capability to use the two-stage-to-orbit concept to put a hypersonic reconnaissance vehicle into low earth orbit on short notice and return it to earth like an airplane. My conclusion: the linear aero spike engine is a reality and will be seen again in a space vehicle design. And, composite structures with integral cooling capability represent a significant improvement in heat dissipation over the tile system used on the Space Shuttle. Any future manned space plane will likely use this type of system.

On another subject, a footnote in the news last week may have been missed, and I would like to mention it now. Former Secretary of Defense Casper Weinberger passed away at age 88. He was the architect that rebuilt the US military capability that was lost during the Carter administration. It was his vision that caused the eventual fall of communism, when the Soviets realized they could not match our technological advantage. It is the prime reason why today there are far less nuclear weapons on either side than there were during the Cold War.

I was in the Minneapolis airport several years ago, talking on the phone, when an unmistakable image passed by. It took a few seconds to realize that it was Casper Weinberger. I excused myself from whomever I was speaking with, and followed him to the seating area at gate F-2. When he saw me approaching, he stood up, held out his hand and said, “Hello, I’m Casper Weinberger”. We shook hands and spoke for a few minutes. I told him where I was during his years as Defense Secretary, and about my experience at Edwards AFB in the R&D world. I thanked him for the huge difference he had made to us, and to the world. Farewell.

Finally, I spent a few days in France during the middle of March, and had the opportunity to sit in the cockpit of the A380. Yes, Virginia, it’s BIG!! A picture is attached.

Some great weather and great flying is ahead of us now that Spring is here. Use caution for the winds and energy of Spring, and never forget to lend a hand to your fellow pilot when it’s needed.

