



Rychel's Viking powered Zenith CH650 and Gilbert's Citabria 7ECA at EAA Chapter 1288 breakfast – Valkaria X59 airport

Sad News

Long time EAA 866 Chapter member Stu Sammis passed away Mon. evening June 30. He served as VP for a number of years and was always at all of our functions to help in any way he could. He was well liked and will be greatly missed.



Every time I think of Stu I see him raising the American flag on our flagpole at all of our functions.

Larry

President's Message July 2014

In the next few weeks, some of us will be preparing to go to Oshkosh. This year promises to be very exciting with the plans to build an airplane from kit in a box to taxi. Your President will be in the thick of things doing her part to make this project a reality. I am very proud to be part of this and to represent Chapter 866 in the build process. It will be a learning experience that will leave echoes in my work for a long, long time. At our next meeting, I hope to have enough pictures as the work progresses to show. Our meeting this month will feature a presentation that Les has prepared. Not knowing how many will

attend, due to the holiday; we thought this would work out nicely.

We had 134 for breakfast. Great job everyone! At our last meeting, Eddie Brennan volunteered to take care of the Propane Supply for our grills. These need to be filled every other breakfast and are getting a little cumbersome for Larry.

Many thanks to Loretta for the nice treats.

We have also had some good progress on projects:

Les' RV4- Corrosion arrested, in prep to fly, left wing is in place and painted; Bob R has been helping him with some issues.

Steve C is looking for a DAR, Pete suggested Al Kimble, so he can get his Thunder Gull certified.

Kip has a few trim issues- he installed a new trim tab on the tail, now it has a dead spot, more testing required.

Eddie B has been making good progress on his Cruzer-says Bob is a great Tech Counselor.

Pete talked a little about the recent fatal accident just after take-off, and offered this: If you have an engine out on take-off, use your flaps! Put them at full deflection- this is a good opportunity to close it down. Flaps add lots of drag. This maneuver may just save your life. A 45° angle of bank at 1000' should get you back to the runway. An hour spent with a CFI to practice this if you are rusty, is an hour well spent.

Jim Morgan announced that his Grandson has graduated from the Air Force Academy. Congratulations to Jim and his Grandson. We all know family support is crucial to success!

Richard has transferred "Warbirds" from VHS to DVD and it is now available in our library for all to enjoy.

Our Twister continues her march towards completion. The wings are nearing the point where they can go to paint, wiring is organized and tagged for installation.

Happy Birthday, USA

For over 200 years we have been celebrating our push to throw off the yoke of tyranny. Without those brave souls, then and now, who took up the mantle to fight for that vision of what the United States has come to stand for, would we be a free nation? As we prepare to celebrate our Nation's birthday, let us all take a moment to think about those sacrifices, through the last 238 years, that made this country great and continue to make us the shining beacon of opportunity and freedom the rest of the world just dreams about. Our system may not be perfect, but it is unique, forged through reason and the vision of our forefathers- something worth fighting for. To all those who made that sacrifice and stood up to be counted, I salute you and thank you for your service to this Great Nation.

Have a Happy and Safe 4th of July. See you at Breakfast on Saturday the 5th! Blue Skies, Deborah

**

Note: Engine out on climb out. Know your airplane, it may not be a good idea to use all of your flaps while trying to get back to the runway because all of that extra drag means your glide distance is lessened! I'd only use flaps if I had the runway made for sure. If the landing has to be off field I'd probably use all of available flaps to hit as slow as possible and under control. - Maybe that's what Pete meant. A 45° bank at low altitude is very uncomfortable for many pilots so, this should be practiced at altitude, in my opinion. - - Larry

Where's thuh kats?



Bldg. 10 now cat proofed!

Brady

Our meeting room and building has been invaded by the cats of Dunn Airpark and they have been wreaking havoc with the upholstered furniture that we use for our meetings and breakfasts. We talked about leaving a radio on to make the Dunn cats afraid to enter but one person said that doesn't work, another said maybe some kind of noise maker like gunshots would work. Nope, this would be too radical. Then it was suggested that we trap them and release them in East Overshoe. Eddie offered to leave his dog Brady in there overnight but he said after Brady ate the cats he'd probably get bored and chew the legs off of the pancake grill or something like that. Nope, Loretta and I plugged up all of the places that we could find that they can get in. One of their food sources on the airport has dried up and I suppose some of the places that they have been occupying (hangars) have been cat proofed so, they chose our meeting place to wreck furniture. Now they'll have to look elsewhere.

Turf Runways at Dunn

The Dunn Airpark has a nice turf runway but, it's very hard to see from the air. The markers that delineate the sides of this runway are not visible when on downwind, base, and final especially to runway 4 in the morning. The tail dragger pilots at based at our airport love to use the turf runways and we can usually find these because we have landmarks like trees and bushes that we know will align us with the center of the runway. At about 30- 40 agl feet you can pick the markers out but when you're that close and not lined up it's go around time! Best not to radically maneuver when that close to the ground. (stall/spin w-no room to recover!) When I fly and land on 4 I don't see the side markers before I see the red runway end markers and the green threshold markers. Don't believe this? Come fly with me some morning. As you know, Ray Thomas was flying solo and landing on runway 4 one morning from the back seat of the Cub, on final, looking out the left side window ahead and down the runway (that's what you do from the back seat of these because looking over the nose you only see sky) and for some reason, wound up landing to the right side of runway 4. Luckily he wasn't hurt and there was no structural damage to the Cub but managed to damage an airport sign and the Cub.

We've had some discussion with Richard Jones who manages the physical aspects of the TICO airports about the problems with the turf runway markings and the bumps crossing the paved runway and taxi way. We suggested markers similar to the segmented circle at the windsock because that's very visible, and came up with the idea of experimenting with temp. markers to help indicate where the runway is in various segments of the traffic pattern. So, we put some white boards 32" x 72" on the ends of the runways and flew around the pattern and took pictures. On rwy 4 we used 4 - 32"X72" boards and on rwy 22 we used two 64"X72" (doubled the width) to see which is more visible) Lets look at the pictures.



Note: you can see the 4 - 32" x 72" markers on the beginning of rwy 4, do you see any other markers showing the runway edges?



Do you see the markers (2) on the beginning of runway 22? These are 64" X 72". Do you see the existing runway markers along the sides of the runway? Do you see the segmented circle around the windsock?

June Breakfast

Les Boatright arrived around 6:30 am and started setting tables up, a short time later Jim Morgan arrived to help Les.

Pete Burgess Myers has taken on the duty of keeping the rest room we're allowed to use supplied with bathroom tissue and even cleaned the place.

Billy Meheffy showed and assumed table cleaning duties. He diligently watched and kept them clean between eaters.

Loretta and Donna brought in the gravy, grits, biscuits and their wonderful sweets. and set the inside area up to serve coffee and stuff to eat inside. Ray resumed his duties cooking bacon

Deborah showed with a delicious cake and oatmeal cookies and took up her post as eggenator, (custom egg cooker)

Herman and Becky were out there collecting wampum from our customers. (About 130 eaters)

Kip Anderson (pancake support) brought his custom made pancake mixer and whipped up our special recipe pancake batter.

The event ran like a well oiled machine! Many of the folks who came to have breakfast with us complimented us for a wonderful breakfast. One couple took pictures and posted these on their facebook page.

Missed Stu Sammis, he's usually there to help set up and is the one who raises our American flag. Deborah told me he has been sick we will try and find out how he's doing.

A good time was had by most!

Eddie has graciously volunteered to take charge of keeping the propane bottles ready for our breakfasts. After all of these years of doing this, this will be another break for me. Thanks Eddie. lg

This Month's Flying

The highlight of this month's flying was flying with Pete's grandson Ethan who is 14 yrs old. We logged a little over 3 hrs of dual in Fancy. Even on the first flight Ethan did most of the flying and performed straight and level, level turns, then climbs and descents. We even did some approach to landing stalls. Even with his first landing I could feel him pulling the nose up into the landing configuration as the plane settled onto the ground. We worked the rudders together and rolled to a stop and he taxied all the way back to the hanger. The second flight included a low pass down 15 at the Shuttle Landing Facility. He let down from 1,500' to our cleared altitude of 500' and took us down the 3 mile runway. After this we reviewed the maneuvers he had learned. The third flight we concentrated on S turns along the long straight stretch of railroad tracks along the West bank of the Indian River at 1,000' on a windy morning. The young man is as close to being a natural pilot, if there is such a thing, as anyone I've flown with! In between our flights his grandfather (Pete) took him up in his RV6 and introduced Ethan to a



more exciting example of flight. We had fun!

On the 3rd Saturday Chpt 1288 has a their monthly breakfast at X59 (Valkaria) so, Bob and Jan and Loretta and I checked to see if we had enough clear WX before the daily Tstorms rolled in to make it down there, have breakfast and get back. It worked out and we had time to do this. The flight both ways was very nice although the wind got pretty strong by the time we got back to Dunn.

The Valkaria Airport has gone through a major overhaul with newly paved runways, (with parallel turf runways) and bright newly painted markings and exceptional new signage. The breakfast is held in a big brand new hangar. The food is almost as good as ours too! (Loretta said she enjoys breakfast there better than ours) We met old acquaintances and enjoyed the fellowship. The airport manager, Steve Borowski is always at the breakfast and very often I see Trudy Infantini, Brevard County Commissioner, there as well.

I did some flying in Bob's CH750 too and even remembered to use L rudder on takeoff this time. It gets friendlier every time we fly.



Turning final for 22 at Dunn with Bobs' CH750

RV-4 Sloooooow Build



Another small milestone is now complete in the saga of my RV-4 project. The wings have BOTH been cleaned, prepped, primed, and painted in their final finish colors.

Once again, the project has shown itself to be an incredible learning experience. An awful LOT of credit and Thanks go to Bob Rychel for sharing his experience, helping hands, and his paint booth. Thanks Bob!! You made it easy, and you undoubtedly saved me from making a lot of amateur mistakes. One thing I've learned about painting alu-ji-mum airplane parts, of all the steps involved in the process, the one that seems to take the LEAST amount of time is the actual painting. The real work and time is in preparation. As some of you already know, I spent a lot of hours over the last few months gently sanding the wing skins to remove several years worth of oxidation and surface corrosion which had accumulated while the wings waited for me to complete other parts of the project. Well, they could wait no longer. Once the sanding was complete, a thorough acid-etch washing

followed, and then they were moved to the paint booth. One of the first steps is to tape off important things like fuel caps, tank drain fittings, and landing light lenses where you DON'T want to get any paint. Then there's more cleaning, and finally, I sprayed on a 2-part self-etching primer. Once that was well cured, there was more scuffing and cleaning, followed by about 3-4 coats of "Performance White". That's an automotive color used by Ford on their Mustangs. Since I wanted to have some look of "Sportiness" about my Sport plane, simply painting the whole aircraft one solid color was not an option. However, to try to keep things somewhat simple, I decided on a 2-color star-burst scheme on the wings, top and bottom. Since all the masking is just straight lines, I figured . . ."Hey, how hard can it be?" Well, as with most things in airplane building, it took about 3 times longer than I expected. Carefully measuring, marking, and laying-out the pattern, and then masking off all the areas to be kept in white. However, when it was finally ready, and another round of scuffing and tack-cleaning was completed, the final finish color of Ford "Vista Blue" was applied. Now I gotta tell ya'll, I had originally considered another Ford Mustang blue color that was known as "Deep Impact Blue", however I quickly reconsidered it; that name just didn't feel right for anything going anywhere near my airplane! The Vista Blue went on in about 3-4 coats to get good coverage. Once the masking was peeled off, it was REALLY rewarding to see the fruits of so much time and labor! IT IS NOT a perfect paint job. After all, it's an AMATEUR-built airplane, and I'm definitely an AMATEUR painter. Nevertheless, Bob & I think it's at least a FIVE-FOOT paint job, so hopefully not too many folks will look any closer than that! More importantly, the wing skins are now corrosion free and well protected against future attacks from time, neglect, and mother nature. The rest of the plane is still a LONG way from finished. None of the rest of my RV-4's exterior has been painted yet. Those parts will get finished, sanded, scuffed, etched, cleaned, masked, primed, and will follow their way to the paint booth over the coming months. However, I now have the confidence that they will eventually turn out just fine.

CAVU,
Les Boatright
RV-4 Sloooooow Build
EAA 866 V.P.

Note: Les has a pair of "Vista Blue" sneakers now too!

Young Eagles Flights Scheduled for Oct. 18

This is my favorite chapter event of the year!

It's not too early to start planning for our annual Young Eagle this October.

Are you a current pilot who meets the criteria to do the flights? (current flight review, medical if you're flying as private pilot, \$100,000 per seat medical + million dollars liability insurance) you need an airplane that is in annual, owned or rented. Can you help with registration? Will you work the flight line or do the ground school portion of the program?

Do you have any ideas about getting the Y-E candidates here? Do you know of a group or organization that would like a presentation about the program? All of this is important. In the past we've been able to get just enough children to our rally for our 5 to 7 planes to keep busy for a few hours. Most of our planes are two place and our rides have been approx. 1/2hr so, we can only handle a limited number of youth. Do you have any idea of whether we should change from doing the SLF flight? If so bring this up at the chapter meeting.

I'll have a listing of jobs and a sign up sheet so we can get an idea of who will be participating.

Larry Gilbert Y-E coordinator

Suggestions for changes to our space program

By Gene McCoy



Note: Gene is a long time member of our chapter and retired NASA Engineer. He has not been active in the chapter for a while due to health issues with his wife. He e-mailed me this copy of his suggestions..... Larry

I have watched a confused program so long that I felt compelled to let off some steam!

My country needs a space program that is efficient, integrated, and has a long range focus.

Here IT IS !

A CONCEPT FOR A MORE EFFICIENT ACCESS TO EARTH ORBIT AND THE SOLAR SYSTEM – AUTOMATED AND MANNED

ABSTRACT

11 June 2014

This paper presents a significant departure from current space program planning. The six significant ideas presented are:

- 1 – Horizontal liftoff from earth for most space missions**
- 2 – Fully reusable hardware for most flights to low earth orbit**
- 3 – Assembly and launch of deep space missions from low earth orbit**
- 4 – The development of a human habitat and operations base on Mars without local human presence or involvement**
- 5 – An integrated approach to national space operations**
- 6 – Space Station immortality**

Background

To insert a payload into LEO [Low Earth Orbit/International Space Station {ISS} Orbit] we must first lift it to about 250 miles above the earth. Think about hauling it up a mountain 45 times the height of Mount Everest (250miles/5.5 miles). Then it must be accelerated to a speed of about 4.9 miles per second in a direction parallel to earth surface. In practice these two jobs overlap in time. This delivery to LEO is the major portion of the energy required to go anywhere in the solar system as further acceleration to a total speed of about 6.9 miles per second (earth gravity escape speed) will put it on a trajectory to Moon or Mars. From a propulsion perspective, LEO is very expensive and from LEO, Mars is cheap! Everything man has ever delivered to LEO has required the throw away of a lot of very sophisticated, expensive, single use hardware. What is sorely needed by anyone and anything going to LEO or beyond is a “Reusable Earth to LEO Vehicle” or “Earth to LEO Shuttle”.

NASA initially planned the Space Shuttle as a fully reusable vehicle with a manned “fly back and land” first stage. A series of program budget cuts without schedule relief by the Carter Administration combed out nearly every identifiable item that provided effective reusability. The fly back and land stage was the first to go. The space shuttle appeared from a distance to be fully reusable but its turnaround time and cost demonstrated that it did not meet that objective.

THE CONCEPT

Earth to ISS

First stage – A Virgin Galactic “White Knight Two” scaled up x 2 or 3 or 4 (fully reusable except fuel) (Ref: www.virgingalactic.com)

Second stage – Ram jet starter rack – Think Boeing B-47 JATO rack or Northrop SM62 Snark intercontinental missile with a recovery package + 70 years of technology (optional stage for heaviest payloads)

Third stage – Ram jet or Scram jet – Think 1942 V-1 plus 80 Years of technology – [X-43a is more than halfway there.] A fly back and land drone.

Fourth stage – Reusable Insertion/Reentry module – This would be a new development. It would resemble the recent space shuttle except fuel would be internal and a cargo module would be attached.

Payload - Cargo module – typical modules:

- 1 – Satellite Propulsion module for second orbit insertion and lifeboat deorbit**

- 2 – Habitat module for ISS upgrade and (later) a Mars base**
- 3 – Utilities module for ISS upgrade and (later) a Mars base**
- 4 – Lab/research module for ISS upgrade and (later) a Mars base.**

- 5– Pantry/supplies module for ISS upgrade and (later) a Mars base**
- 7 – Lifeboat for return to earth**
- 8 – Satellite for deployment from ISS to higher orbit**

The ISS would have an indefinite life and evolve into a manned base camp (Base Camp LEO) for the assembly, preparation, and launch of multi-module vehicles for ventures into different orbits or deeper space. Future supersized modules of Base Camp LEO for growth, refurbishment and evolution into a mature Base Camp LEO would be delivered by the heavy lift vehicle now being developed by NASA-Marshall.

MISSION SEQUENCE

Note: Most satellites would have a straight forward mission sequence so we will describe the ultimate chemical propulsion mission sequence - People to Mars – (round trip).

- 1 – Horizontal liftoff from any base that has the operational skills, logistical base, latitude under 30 degrees, and infrastructure to support the mission. The most viable candidates now are the NM Virgin Galactic Base and FL NASA-KSC.**
- 2 – Fly South to latitude of about 10 degrees while gaining maximum altitude.**
- 3 – Assume an optimal heading for a Base Camp LEO rendezvous and throttle up to maximum airspeed.**
- 4 – Assemble the Mars vehicles at the Base Camp LEO. The first missions would be automated (without people). A fully functional Mars habitat and operation would be developed and operational before people venture beyond the base camp.**

FOOTNOTES

- 1 - The technology to remotely develop a human habitat and operations center on Mars without onsite human involvement largely now exists at NASA-Ames and NASA-JPL. An additional treasure trove of this technology exists in educational and industrial institutions within 30 miles of NASA-Ames. The fragments of needed technology that do not currently exist should be identified and assigned to NASA-AMES and NASA-JPL for development.**
- 2 - Development of the Reusable Orbital Insertion and Reentry Vehicle should begin immediately.**
- 3 – Launch Operations in the NASA Manned Space Programs have become massive, complex, and time consuming. This situation is driven by the tradition of shipping hardware to KSC before the completion of the manufacturing process. Manufacturing has been completed at KSC before checkout and preparation for launch could begin. This concept demands that the manufacturing and checkout be accomplished on earth. The manufacturing process at KSC has mostly been under cover of “checkout” but spacecraft have been declared “ready to launch” and shipped to KSC with as many as 994 open Engineering Orders that must be installed prior to the actual beginning of checkout for launch. Some of these EO’s contained the following note: “Hardware for this EO will be shipped as soon as it is available.” (Apollo Spacecraft 009)**
- 4 – With a single earth-to-Mars vehicle, a launch failure would probably result in program failure. With this multiple launch concept with standardized modules, a launch failure could quickly be replaced with mostly existing hardware.**
- 5 – This is a massive program and should be planned for at least 15 and probably 20 years. NASA funding at the \$18-\$20 billion per year will be sufficient if “Pork” can be eliminated. The folks that do not agree with this**

funding level just do not realize how much of the current NASA budget is “Pork”.
Respectfully submitted:

Gene McCoy
Former Engineer
Retired - Feb 1981
hemccoy@earthlink.net
321-427-4882 Pocket cell 24/7
Maintain "Purpose With Vigor" and stay young for 100 years.

I wish to express gratitude for the following persons and institutions for personally placing me in environments that enabled these ideas:

The Old Clemson College
USAF Wright Air Development Center – Flight Test
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The Stanford Graduate School of Business

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NASA - Administrator
Director - NASA Kennedy
Director - NASA Langley
Director – NASA Ames
Asst. to the President for Science and Technology
CEO Virgin Galactic

EAA Chapt. 1240 located at Sebring Airport (KSEF)

I rec'd this e-mail from George who flew in to our breakfast in June

Our EAA Chapter 1240 has a fly-in Drive- in, every second Saturday of the month, at the Sebring Airport (sef) at the South East side of the Airport, at our new Chapter 1240 hanger that we built. 8:00 to 11:00
We look toward to all to fly over to our event.
George Eschenbach

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Smilin' Jack Chapter 866

Arthur Dunn Airpark (X21) Titusville, FL

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Welcome to EAA Chapter 866

Whether you fly, build, restore or simply enjoy airplanes and aviation, you are welcome to attend our events and join our chapter. We are a group of aviation enthusiasts, aircraft builders, and pilots who get together with like minded people to share ideas, exchange information, encourage safety, serve the local aviation community and have a lot of fun doing so. Please come to our next meeting or event as our guest.

For more information about our chapter, please contact our president via the contact information provided in the sidebar.



Smilin' Jack ®

About EAA

Our chapter is part of the worldwide network of EAA chapters. EAA embodies the spirit of aviation through the world's most engaged community of aviation enthusiasts. EAA's 170,000 plus members enjoy the fun and camaraderie of sharing their passion for flying, building and restoring recreational aircraft. To find out more about EAA and our programs and services, please visit our home page at EAA.org.

Old Time Radio...



Chapter Meeting
Weds. July 2
7:00 pm
Dunn Airpark (X21) Bldg. 10
N. Williams Ave
Titusville, Fl 32796

Chapter Monthly Breakfast

Saturday July 5, 2014

8:00 am

Dunn Airpark (X21) Bldg. 10

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Titusville, Fl 32796