OH YEAH BABY!!

October 2019

Home of the "Panhandle Pelicans"

Squawk 485

Monthly Meeting Ferguson 82J
Saturday October 12th @ 1000
Details

President
John McKiernan
rockyjs7jm@gmail.com
Cell - (850) 291-4134

Hello Everyone,

The busy month of October has arrived. There's lots of things happening throughout the month. Following our second Saturday **October 12th** meeting there will be SERFI, **Oct 18-20** and the following week a **Chapter Young Eagles Rally on October 26th** at our clubhouse.

The big news for the chapter is **Nick Hanssen** received his **Private Pilots License** on October 2nd.

Congratulations Nick!!!

Well Done!

Pensacola FL

September 14th Meeting Minutes called to order at 1000, by Sec/Treasurer Mark Rogers.

Pledge

26 members and guests in attendance. 13 stayed for lunch.

Presentation of new flag approved for pur chase at August meeting.

Guests introduced.

Project status discussed.

Mark Rogers introduced a piece of Art Work he donated to the Club, a signed print of Robbie Risner's last F-105 ingress into North Vietnam, and subsequent POW status of 7 years. The F-105 role during the bombing campaign against the North Vietnamese was briefly discussed.

Ralph Moser thoroughly briefed the status of our Ray Scholarship candidate, Nick Hanssen. Nick has completed his FAA written test and most of his training and is now prepping for his Practical Exam. Nick briefed the membership on his flying activities.

Ralph discussed the 26 Oct YE flight day, and put out a call for volunteer pilots and ground crew.

DeWitt Barker briefed the membership on plans for the Chapter VMC club. Meetings will initially be held prior to our monthly meetings in the Clubhouse.

A plea was made for Newsletter stories, digital format.

Magazine stickers briefed.

October events discussed/briefed. A plea was made for the membership to step up to the plate and take over the chapter officer positions in our upcoming elections.

Request was made for SERFI YE pilots, one vol, Shad James.

Floor opened for new business. None presented.

1055: meeting adjourned to enjoy another Ermer special lunch and fellowship.

Respectfully submitted,
Mark Rogers

New Members

Chapter 485 would like to welcome new member **Dave Lacey**. Dave joined the chapter along with completing his Young Eagle pilot qualifications. Thanks Dave and **Welcome Aboard**!

Chapter Job Changes

Ralph Moser has taken over as our **Young Eagles Coordinator** and is busily working on our rally event planned for October 26th. It took multiple phone calls and emails to the mothership to make the assignment within "Official". He also remains as our Ray Aviation Scholarship Coordinator.

Nick Hanssen is now our **Young Eagles Facebook page manager.** This is a perfect fit since many of us are clueless when it comes to social media" . Thanks Ralph and Nick!

RAY AVIATION SCHOLARSHIP UPDATE

Ralph Moser, Chapter 485 Coordinator

Ray Aviation Scholarship Update

Well, it's done! Nick took and passed his private pilot practical check ride on Wednesday, Oct. 2nd. I would sum it up with two quotes. Nick told me right after, "That wasn't as bad as I thought it would be". John Jenista, the examiner, let me sit in on the debrief with Christian Kidder, summed it up saying, "Your soft-field takeoff, short-field landing and forward slip to a landing were among the best I've seen. Good, solid check ride." Way to go, Nick! You have made Chapter 485 proud! Four months, start to finish. 46 hours of flying and quite a few of ground instruction. Added to the 8 hours Nick started with, he "graduated" with 54.1 hours in his logbook. That's well ahead of the national average, which is in the sixties.

The check ride scheduling got a little complex, with the third attempt being the charm.

Craig Spoke and I hung out in the clubhouse, watching Nick's every move on flightaware.com. Since it took 2.2 hours, we KNEW it had to be successful. We joined in on the ramp when they parked to help celebrate. If you haven't already, check out the pictures on our chapter website at eaa485.org.

I sent in the final report the very next day, Oct. 3rd, confirming some money was left over and told EAA again that we would like to be considered for a second Ray scholarship this year. On Oct. 4th, David Leiting, the Ray program coordinator called me to congratulate us on Nick's success. He also reported that no more money was available for second scholarships this year. Bummer.

He said 94 total EAA Ray scholarships were given out. By the way, Nick was among the first 20 to complete the program, and the overall success rate is excellent. It's working! Any way, I wrote my newsletter input for John and watched football Sunday.

On Monday morning, I received an e-mail from David Leiting saying "I have some potentially exciting news. Are you available for a quick call today?" I called him at the speed of light, and when he called back, he said they had done a financial audit of the program. They had $40,000 more available for second scholarships; would we like one? **HECK YES!** So, he said congratulations, you will receive a SECOND FULL $10,000 RAY SCHOLARSHIP!!!

Brian Harris is our pre-selected guy, and he is filling out the application as I write this. As with Nick, we have already selected him, EAA just verifies that he meets all the requirements. This process took less than a week last time. This is the best possible news we could have dreamed of. As with Nick, Brian will have 60 days to get started flying and up to 12 months to finish. We will celebrate this at the meeting.

If you have been following the EAA and AOPA news, 2020 looks to be a banner year for flight training scholarships. For EAA, the Ray foundation has upped the pot to $1,200,000, a 20% increase over this year. In other words, 20 more scholarships. And on the AOPA side, the Ray Foundation and AOPA announced at the Tullahoma AOPA Fly-In that their 2020 pot will total $5,300,000. Wow!

Now more good news! An anonymous donor in the chapter has given us (it's in the bank!) $5000 to pay for the chapter half of a matching Ray scholarship for 2020. As I mentioned at the meeting last month, if a chapter like us who has run a Ray scholar successfully through private pilot (Nick), we can choose to GUARANTEE a scholarship for 2020 by matching $5,000 with EAA paying $5,000, $10,000 scholarship total. This generous donor who wishes to remain anonymous has given us this golden opportunity. So in a few months we expect to be interviewing for our THIRD $10,000 Ray scholarship!

I will not be able to attend the meeting on Oct. 12th, due to a nephew's wedding in Wisconsin. Bill Diaz, one of our trusty Ray Scholarship Committee assistants, will update these and other items in my stead. He will be proposing a motion regarding follow-on flying money from the chapter for Nick. I ask for your support of that motion. We could not have had a better inaugural Ray scholar.

Ralph

Young Eagles Rally October 26th

Coord Ralph Moser (847) 736-4603

Plans for a Chapter 485 rally on Oct. 26th are firm, with a weather backup date the following Saturday morning, Nov. 2nd. We are going to try pre-registering EVERYBODY – Pilots, Ground Crew, and Young Eagles – using the EAA youngeaglesday.org website. The event is listed there now, and our advertising will steer parents to it to register their kids. It has three hourly time blocks to choose from, to try to spread out the flights. I input a maximum number of flights/hour, and it rolls subsequent sign-ups to another block. It gives us a prediction of how many of each group plan to show up. And it gives me a daily update of the total signups.

What I ask each of you who plans to help as a pilot and/or ground volunteer is go there and sign up. The "Sign Up" is near the top of the page which creates your YE volunteer profile. (Cont'd on Pg. 6)

Airbus A320

The Airbus 320 service began when the first aircraft was delivered to Air France, the Launch Customer, in March of 1988. It was the first commercial airliner to adopt Fly-By-Wire Technology. Three months later on June 23rd, Air France took delivery of the third 150 seat A320. Three days later it crashed during a low fly-by during an airshow at Mulhouse-Habsheim Airport.

When you watch the video it's amazing that there were only 3 fatalities, a woman and 2 children out of the 6 crew members and 130 passengers on board. Official reports concluded that the pilots flew too low, too slow, failed to see the forest and accidentally flew into it. The captain, Michel Asseline, disputed the report and claimed an error in the fly-by-wire computer prevented him from applying thrust and pulling up. In the aftermath of the crash, there were allegations that investigators had tampered with evidence, specifically the aircraft's flight recorders ("black boxes").

The entire "family" consisting of the A-319, 320 and 321 aircraft has a very good safety record. The A-320 has had 36 hull loses and 17 fatal accidents. In early 2016 the latest model A320neo was delivered to Lufthansa. The neo stands for new engine option. The original family has been renamed to A320ceo, current engine option. Airbus has built 933 of the new jets and have orders for a mind blowing 6638 orders. Like the 737max that's a whole bunch of money. Considering the average price of about $114 million = $756 Billion.

The following article is about an AD (Airworthiness Directive) issued by the EASA

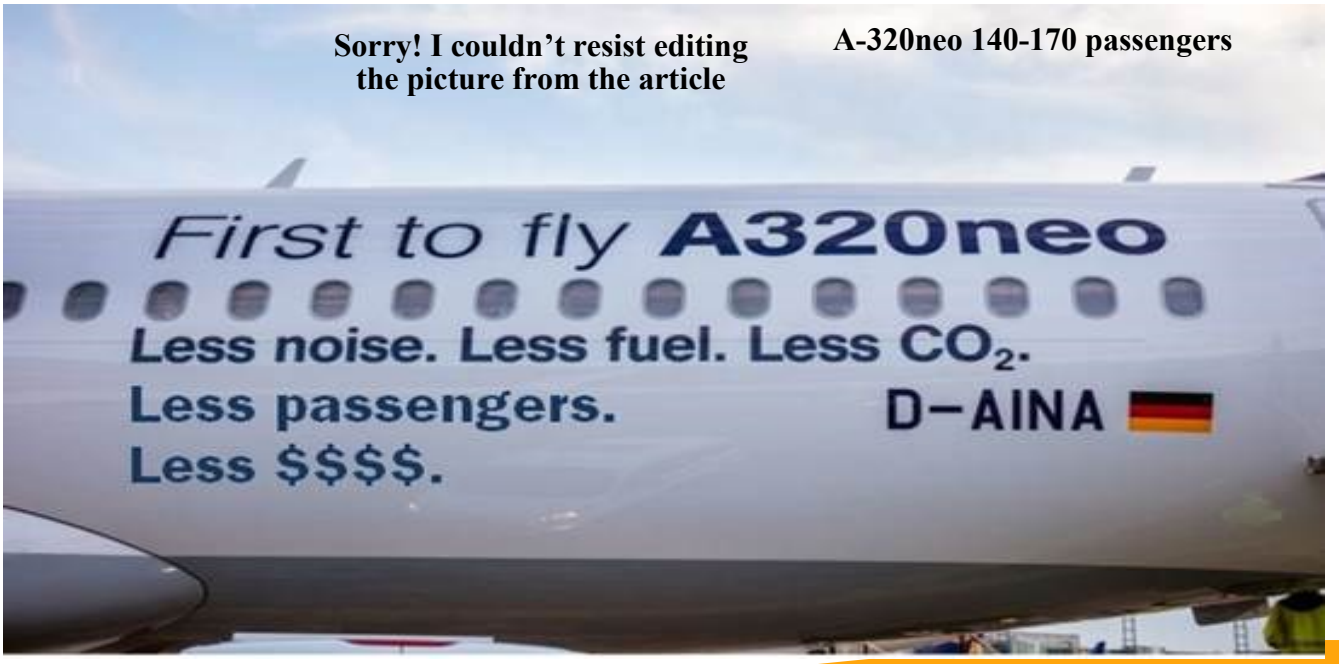
Basically the FAA of the EU

The article discusses Airbus restricting the Center of Gravity envelope: "a reduced efficiency of the angle of attack protection when the aeroplane is set in certain flight configurations".
It's a short article an has links to the AD issued by EASA. Several operators are blocking off the last row of seats.
https://simpleflying.com/a320neo-cabin-rows-blocked/

The Airbus "possibly" can exhibit some non-standard control issues when flying with an aft CG. All swept wing commercial aircraft that I'm familiar with, the CG of the aircraft moves forward during the fuel burn-off. So I assume this issue is additional protection for takeoff only. They say the event has "never [been] encountered during operations". Hmmn! Well, how do they know about it? John

Sorry! I couldn't resist editing the picture from the article

A-320neo 140-170 passengers



What Really Brought Down the 737max?

This is a lengthy article so get yourself a cup of coffee or two if you're going to read it. It's well written and not overly complex. I've addressed the Max on multiple articles and this summary is the most in depth examination of the chain of events leading up to the two fatal crashes. It addresses not only the faults of the MCAS system but also delves into the lack of sufficient crew training, experience and airmanship of the flight crews. This doesn't let Boeing off the hook by any means since they are part of the chain and I believe had plenty of opportunity to correct the problem before the two catastrophic events took place.

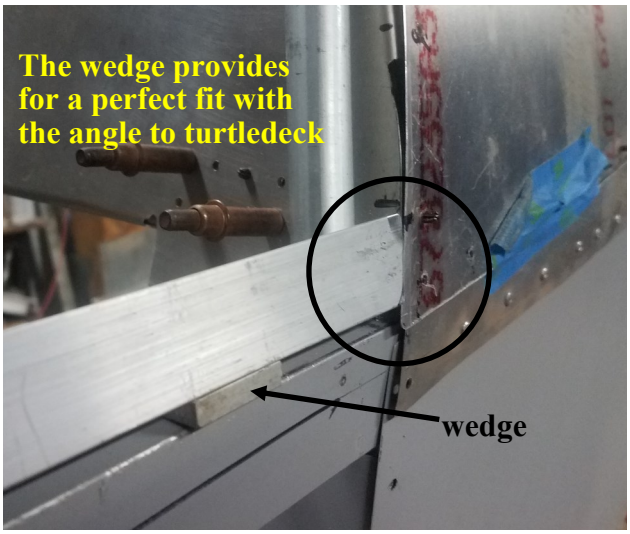
https://www.nytimes.com/2019/09/18/magazine/boeing-737-max-crashes.html?smid=nytcore-ios-share

Thatcher

We've now formed 3 bows, 2 making up the moving part of the canopy and last forming the aft side of the fixed windshield. Additionally, we

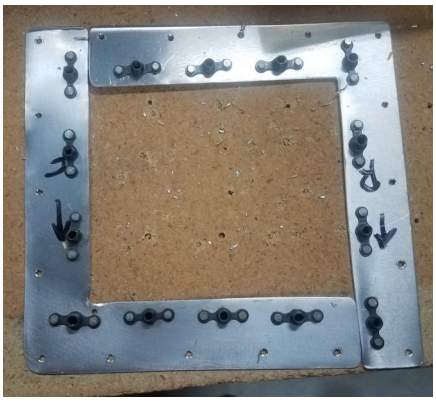
now have a solution to fairing out the canopy side rails which are 1" 1/8" thick angles. These angles needed to be bent at a slight angle and it would be extremely difficult for us to do that.

We found an 8'wedge piece of aluminum in my hangar that makes the transition perfect. These will be form fit and riveted to the to the longeron rails. On the pivot side of the canopy (right side) the lower portion of the hinge will be fastened through the wedge and longeron. The entry side will have the wedge riveted to the longeron and the canopy rail will nest to it.



We cut a couple of small wedge pieces to test the angle. The bow will be notched to flush out to the angle and the skin. We will be using some 2" long 4130 5/8" tubes as stantions inside the bows to secure them to the canopy rails and may need to reinforce the EMT bends slightly with a thin piece of 4130 plates to act as a gusset and strengthen the structure.

We continued working on the forward access panels and installed nut plates to the retainer flanges. The small outer holes use /32" (AN426)



flush rivets to mount the retainer to the side panels. This will require dimpling both the outer skin and retainer plates. Originally we were going to use flush screws to fasten the co-

vers, however, I didn't have enough recessed nutplates at my hangar. Another problem is when you dimple for #8 screws it has a tendency to distort the metal so we opted to use normal AN 526 screws instead.

Here are the right side access plate retaining strips installed. This is a pretty involved project but we are happy with the results. The flush covers by their construction lend some structural integrity to the hole since we effectively add a large .032" doubler with the retaining strips. These are located in the side skins that attach to the firewall so obviously we want to ensure structural integrity'. We may also need to add a small aluminum angle vertically between the longerons on the forward side of the opening to stiffen the skin

Young Eagles Rally (Cont'd from pg. 3)

You can sign up for both pilot and ground volunteer. I encourage you to do so. We will back this up with clipboards to sign up at the meeting on the 12th, but then we miss people. So…we're gonna give the EAA website a chance to save us mailing out registration forms to schools, etc. I'm just sending them a short flyer about the event and directing interested parties/parents to the youngeaglesday.org website. And Chris Hornady, one of our past Young Eagle coordinators, is transferring administrator authority of our Chapter 485 Young Eagles Facebook page to Nick Hannsen, who will help me get the word out on Facebook. I'll get a poster up in Ferguson office, and they' talk it up at their breakfast on the 19th.

John tells me, the critical item is always pilots. The more the merrier. The intent is to have fun sharing your love of aviation, with a little before and after time with each Young Eagle, rather than "production line" flying. Craig Spoke, Young Eagles Coordinator emeritus, will cover for me in this area at the meeting.

Ralph

VMC Club Meeting Oct 12th @ 0830

Thanks to Donna and DeWitt Barker the VMC club is now a chapter function. The program is designed for pilots and those interested in aviation to increase proficiency in their aviation skillset.

The club is a monthly gathering of pilots who want to share experiences and learn from others in various flight situations. The **VMC club** opportunities are open to any pilots and non-pilots who want to improve their proficiency, gain knowledge about air space, TFR information, and hanger talk about topics that are relative to current flying conditions in not only our local area but within the United States.

The EAA monthly provides scenarios or a question for the VMC Club members to answer and discuss.

The first meeting will take place on Saturday Oct 12th @ 0830. As a group we'll decide when and where future monthly meetings will occur.

Come and join our group!

Weight and Balance

If you're an airplane owner or not you need to be very familiar with the particular aircrafts weight and balance. The engineers who designed and manufacturers that built the aircraft have carefully computed and demonstrated the minimum and maximum CG (Center of Gravity) permissible under various conditions. The CG point is the place of Mass concentration along the longitudinal axis. Computing weight and balance using actual load data shows where your CG is located within a zone. **Remember** that you need to check your CG for both the takeoff and estimated landing conditions.

Many of the EFB programs have Wgt and Bal programs built in. Today with our smart phones and tablets a simple spreadsheet can be used to plug weights in and instantly check the CG. The math is very simple and we'll go through a typical Weight and Balance calculation. Onboard my RV-7 I have a single sheet of paper showing the empty weight and CG of the aircraft and a few other scenarios. With a spreadsheet it's a simple process to copy and paste and change the loading data to get results such as: Most forward CG, Most Aft, Heaviest, Lightest, Max Fuel, Min Fuel, Baggage, No Baggage.

Aircraft Weighing

Before doing anything we need to verify the aircraft weight. If there isn't a recent "reliable" weighing it needs to be weighed. To do this refer to the Aircraft Operating Manual and determine the level flight attitude of the aircraft. On a tricycle gear airplane, the aircraft on the gear on the ground normally is close and needs just slight tweaking. Weighing a conventional gear aircraft, we need to raise the tail up to place the aircraft in the flying position. On my RV–7 the "level" attitude is located by placing a level on the longerons inside the canopy. As you can see from the diagram the tail needs to be raised significantly.

We use a scale for each wheel and use material to adjust the aircraft to the flying position. On a tricycle gear airplane sometimes it's easier to just adjust the nose strut pressure. Whatever works! Any weight used (Tare) must be subtracted from the individual scale. I weigh planes with **unusable** fuel and engine oil included in the empty weight. Yes, you'll need to defuel the aircraft in the level flight attitude. Proper fuel planning helps make this task less painful

Computing CG

Before taking the aircraft off the scales it's a good idea to verify the Arm distances from the manual. To keep things in order we need a reference point called a DATUM to make measurements from. On the RV-7 the info was supplied in the build manual and Van's established a Datum 70" forward of the wing leading edge. This will ensure all moments are positive. If the Datum was located at the wing leading edge the main gear arm on the diagram would be –1.66" yielding a **negative moment.** The main wheels are located at an Arm of 68.45" and the tailwheel has an Arm of 249.19". We do some simple math to arrive at the CG of the aircraft.

Moment *= ARM x Weight* ***CG****=Moment/Weight*

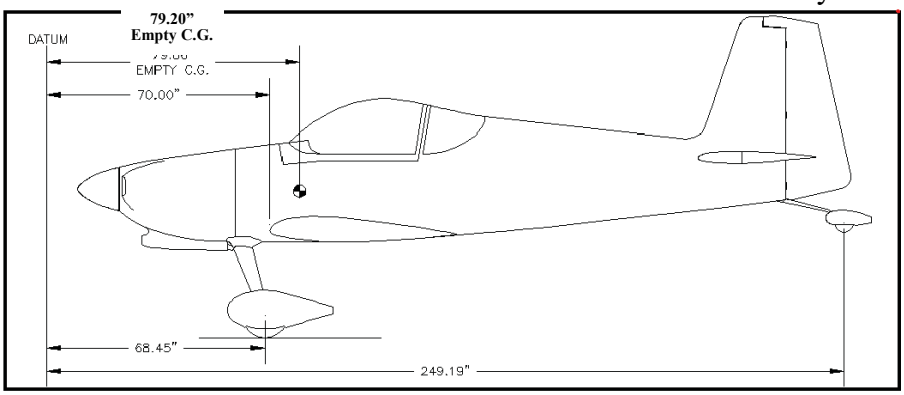
My RV-7 had the following weights:

R-520 lbs, **L-508** lbs T**W– 65** lbs

	wgt	arm	moment
Solving:	520 x	68.45 =	35594
	508 x	68.45 =	34773
	65 x	249.19=	16198
	1093		**86564**

CG =Moment / Weight = 86564/1093 = **79.20"**

My Basic Empty Weight is **1093 lbs @ 79.20"**



With a basic empty weight and CG we can now plug the weights of the fuel , seating areas and baggage compartments to see the impact on the Basic Weight.

We'll look at the full Weight and Balance document that I carry onboard and keep with my Airworthiness, Registration and Operating Limitations.

October 2019

EAA 485 news

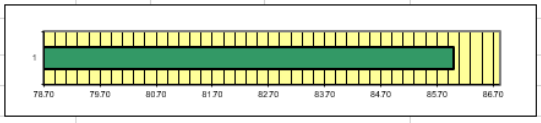
Weight and Balance (Cont'd)

We now have an empty aircraft weight of **1093** lbs and a 79.20" CG. The design CG range of the RV-7 has is 78.7 - 86.82". That places the forward CG limit 8.7" aft of the leading edge of the wing and the aft CG limit at 16.82" giving us a design range of 8.12". The mid range of the CG is located at 79.85". If we look at the MAC (Mean Aerodynamic Chord = 58") the CG range is located at **15-29% MAC** and found by dividing both 8.7/58 = .15 and 16.82/58 = .29 .

Flight characteristics are influenced by CG. An aft CG can make the aircraft difficult to control since the further aft the CG becomes the less stable the longitudinal axis is. The center of mass is moving closer to the Aerodynamic center. With a forward CG the aircraft is slow to respond to elevator input and stable with a wide spread between the two "center points."

Here is a sample weight and balance spreadsheet of my RV-7 aircraft. I've added a second row of seats that would use the Arm of the passenger compartment for 4 places. If you need another passenger compartment just insert another row. The spreadsheet is handy to have on your phone since it displays well on small screens. The spreadsheet shows the Basic Aircraft Empty CG and then allows entering fuel gallons, pilot, passenger and baggage weights and computes the CG loading of the aircraft for a planned flight. The aircraft Max Gross weight is a reference for determining when the aircraft max takeoff weight will be exceeded. If this condition exists **Overweight** will display. If the Max Gross is not exceeded the cell remains blank. The lower graph shows you where your CG is located within the normal CG range.

N Number	**Weight and Balance**			**10/9/2019**
Aircraft Weight March 4, 2016			Datum 70" Fwd Wing LE	
Wing Leading Edge "		70	MAC "	58
Design CG Range "		**78.7**	**86.82**	
	MAC	**15.0%**	**29.0%**	
Empty CG				
Max Gross	**1850**	Weight	Arm	Moment
Right Main		520	68.45	35594
Left Main		508	68.45	34772.6
Nose/Tail Wheel		65	249.19	16197.35
Total Empty		**1093**	**79.20**	**86563.95**
Total Useful		**757**	**15.9%**	**Within CG Limits**
Compute CG For Current Weights				
		Weight	Arm	Moment
Total Empty		**1093**	**79.20**	**86563.95**
Fuel Gal	12	72	80	5760
Pilot		200	97.48	19496
Co Pilot		130	97.48	12672.4
Rear Pax		0	0	0
Baggage		100	126.78	12678
Total		**1595**	**86.00**	137170.35
			27.6%	**Within CG Limits**



I've included a spreadsheet as an attachment with the newsletter:

Setting Up the Spreadsheet

1. Enter all data highlighted in **BLUE**; N number, Datum info, Wing LE in inches, MAC in inches, design CG range, Max Gross, weight of each wheel, the arms of the wheel axles. Additionally, we need the **arms** of the fuel tanks, pilot, copilot, rear pax and baggage.
2. The Graph portion needs to be setup for your particular CG range. The green bar is referencing whatever the final arm is so we don't need to make any changes to that.

Changing the Yellow Bar

- Right click within the yellow bar to bring up a menu and select "**Format Axis**" "last item"
- Under "Axis Options" fill in the data you put for the design Minimum and Maximum boxes. Input your Minimum CG inches and Maximum CG inches.

The entire spreadsheet with the exception of the YELLOW cells needs to be protected. This will prevent formulas and hard data info from getting inadvertently changed.
You're now set to enter your particular data in the cells.

Don't forget to check your CG for your planned landing weight by entering your estimated fuel on landing

John

N767JM Weight and Balance 4-Mar-16

Design CG Range: **78.7-86.82" aft of datum**

Mid CG **82.76** Datum 70" ahead of Wing LE

Empty CG

Max Gross	**1800**	Weight	Arm	Moment
Right Wheel		520	68.45	35594
Left Wheel		508	68.45	34772.6
Tail Wheel		65	249.19	16197.35
Total Empty		**1093**	**79.20**	**86563.95**
Total Useful		**707**	**15.9%**	**Within CG**

Gross Weight CG

		Weight	Arm	Moment
Total Empty		**1093**	**79.20**	**86563.95**
Fuel Gal	42	252	80	20160
Pilot		220	97.48	21445.6
Passenger		185	97.48	18033.8
Baggage		100	126.78	12678
Total		**1850**	**85.88**	**158881.35**
			27.4%	**Within CG**
Landing with no fuel		1598	**86.81**	138721.35

Most Aft CG

		Weight	Arm	Moment
Total Empty		**1093**	**79.20**	**86,563.95**
Fuel Gal	5	30	80	2400
Pilot		213	97.48	20763.24
Passenger		212	97.48	20665.76
Baggage		100	126.78	12678
Total		**1648**	**86.81**	**143070.95**
			29.0%	**Within CG**

FWD CG STD Pilot

		Weight	Arm	Moment
Total Empty		**1093**	**79.20**	**86,563.95**
Fuel Gal	42	252	80	20160
Pilot		170	97.48	16571.6
Passenger		0	97.48	0
Baggage		0	126.78	0
Total		**1515**	**81.38**	**123295.55**
			19.6%	**Within CG**

FWD CG MIN Pilot

		Weight	Arm	Moment
Total Empty		**1093**	**79.20**	**86,563.95**
Fuel Gal	42	252	80	20160
Pilot		100	97.48	9748
Passenger		0	97.48	0
Baggage		0	126.78	0
Total		**1445**	**80.60**	**116471.95**
			18.3%	**Within CG**

Gross Weight Heavy Pilot

Heavy Pilot		Weight	Arm	Moment
Total Empty		**1093**	**79.20**	**86,563.95**
Fuel Gal	30	180	80	14400
Pilot		238	97.48	23200.24
Passenger		239	97.48	23297.72
Baggage		100	126.78	12678
Total		**1850**	**86.56**	**160139.91**
			28.6%	**Within CG**

Test Flight CG

		Weight	Arm	Moment
Total Empty		**1093**	**79.20**	**86563.95**
Fuel Gal	20	120	80	9600
Pilot		200	97.48	19496
Passenger		0	97.48	0
Baggage		15	126.78	1901.7
Total		**1428**	**82.33**	**117561.65**
			21.3%	**Within CG**

Test Flight CG Landing

		Weight	Arm	Moment
Total Empty		**1093**	**79.20**	**86563.95**
Fuel Gal	5	30	80	2400
Pilot		200	97.48	19496
Passenger		0	97.48	0
Baggage		15	126.78	1901.7
Total		**1338**	**82.48**	**110361.65**
			21.5%	**Within CG**

SERFI (Southeast Regional Fly-in)
Evergreen, AL Oct 18,19,20

I didn't get to the last SERFI planning meeting but gave and input to both Dave Richardson the SERFI Chairman and Bruce Newman. I plan on being up there to fly Young Eagles and I know many of our members go there. We need a few pilots and ground volunteers to assist with the event. Chapter 822 in Wetumka, AL is doing the administrative part and probably would welcome any help we can lend. So if you're up there consider helping out especially if you can give a couple Young Eagle flights. The chapter still benefits by receiving a $5 credit for each Young Eagle flight to use towards our program.

There are also other areas to volunteer. They normally have the volunteer area in the back of the big Red Hangar and I'm sure they'll be glad to see you!

EAA Launches New SkillScore Tracker

EAA, in cooperation with CloudAhoy, a leader in bringing technology to post-flight debriefing, is releasing at no charge to EAA members the first proficiency tracker for flying skills. The EAA SkillScore Tracker is the first resource that allows pilots to measure flying proficiency on an EAA web portal or their mobile devices. Working through the CloudAhoy mobile app, pilots can track flying consistency and stability. Using this data, the EAA SkillScore Tracker will generate a comprehensive, personalized, and confidential SkillScore, confirming a pilot's overall strengths or need for additional work.

"The principles behind this feature are very similar to the fitness trackers millions of people use for exercise," said Rick Larsen, EAA's vice president of communities and member programs. "Using this app with every flight measures flying skills in several categories to determine where a pilot stands. These scores are easy to track and establish a way for pilots to be more proficient in the sky."

The proprietary tracking and scoring system was developed by EAA in association with flight training community leaders Aleks Udris and Colin Cutler of Boldmethod, along with Billy Winburn of Community Aviation and Karen Kalishek (CFI and FAA's 2019 Safety Representative of the Year). Some of the scoring measurements include:

- Quality of flight (stability of landing approach, maintaining altitude in straight-and-level flight and in turns, and quality of FAA-standard maneuvers such as steep turns)
- Number of takeoffs and landings within 90 days
- Number of flights with a flight instructor
- Time spent in the air

"Every flight is an opportunity for pilots to improve their skills, but we can track improvement only if we can measure it," said Mike Goulian, Red Bull Air Race champion, air show performer, and flight instructor, who participated in the project's development. "When coupled with CloudAhoy's standard app, EAA SkillScore Tracker is the best way to track your progress, without the time and expense of unnecessary effort, so you can continually build your abilities with every flight."

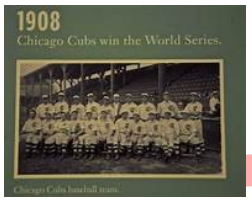
While the EAA SkillScore Tracker is free to all EAA members, CloudAhoy also offers more in-depth and detailed analysis for premium account holders.

More information about the EAA SkillScore Tracker is available at EAA.org/proficiency.

At our July meeting Ralph Moser gave a presentation about the National Association of Flight Instructors NAFI. With membership they offer significant discounts from various businesses that can save enough money to pay for their annual membership. One of them was Cloudahoy. He gave an excellent overview of it's capabilities. It's some very impressive software.

I've personally signed up and plan on using the software and will give a report on it in a future newsletter. If you decide to "try it out" please write me a short review of your perception. It's very nice to see how a particular flight looks on the software. It's especially important if your doing precision flying such as steep turns, turns around a point, holding heading, altitude and airspeed.

Let me know! John



Metric Tap & Clearance Drill Sizes		Tap Drill				Clearance Drill			
		75% Thread for Aluminum, Brass, & Plastics		50% Thread for Steel, Stainless, & Iron		Close Fit		Standard Fit	
Screw Size (mm)	Thread Pitch (mm)	Drill Size (mm)	Closest American Drill	Drill Size (mm)	Closest American Drill	Drill Size (mm)	Closest American Drill	Drill Size (mm)	Closest American Drill
M1.5	0.35	1.15	56	1.25	55	1.60	1/16	1.65	52
M1.6	0.35	1.25	55	1.35	54	1.70	51	1.75	50
M 1.8	0.35	1.45	53	1.55	1/16	1.90	49	2.00	5/64
M 2	0.45	1.55	1/16	1.70	51	2.10	45	2.20	44
	0.40	1.60	52	1.75	50				
M 2.2	0.45	1.75	50	1.90	48	2.30	3/32	2.40	41
M 2.5	0.45	2.05	46	2.20	44	2.65	37	2.75	7/64
M 3	0.60	2.40	41	2.60	37	3.15	1/8	3.30	30
	0.50	2.50	39	2.70	36				
M 3.5	0.60	2.90	32	3.10	31	3.70	27	3.85	24
M 4	0.75	3.25	30	3.50	28	4.20	19	4.40	17
	0.70	3.30	30	3.50	28				
M 4.5	0.75	3.75	25	4.00	22	4.75	13	5.00	9
M 5	1.00	4.00	21	4.40	11/64	5.25	5	5.50	7/32
	0.90	4.10	20	4.40	17				
	0.80	4.20	19	4.50	16				
M 5.5	0.90	4.60	14	4.90	10	5.80	1	6.10	B
M 6	1.00	5.00	8	5.40	4	6.30	E	6.60	G
	0.75	5.25	4	5.50	7/32				
M 7	1.00	6.00	B	6.40	E	7.40	L	7.70	N
	0.75	6.25	D	6.50	F				
M 8	1.25	6.80	H	7.20	J	8.40	Q	8.80	S
	1.00	7.00	J	7.40	L				
M 9	1.25	7.80	N	8.20	P	9.50	3/8	9.90	25/64
	1.00	8.00	O	8.40	21/64				
M 10	1.50	8.50	R	9.00	T	10.50	Z	11.00	7/16
	1.25	8.80	11/32	9.20	23/64				
	1.00	9.00	T	9.40	U				
M 11	1.50	9.50	3/8	10.00	X	11.60	29/64	12.10	15/32
M 12	1.75	10.30	13/32	10.90	27/64	12.60	1/2	13.20	33/64
	1.50	10.50	Z	11.00	7/16				
	1.25	10.80	27/64	11.20	7/16				
M 14	2.00	12.10	15/32	12.70	1/2	14.75	37/64	15.50	39/64
	1.50	12.50	1/2	13.00	33/64				
	1.25	12.80	1/2	13.20	33/64				
M 15	1.50	13.50	17/32	14.00	35/64	15.75	5/8	16.50	21/32
M 16	2.00	14.00	35/64	14.75	37/64	16.75	21/32	17.50	11/16
	1.50	14.50	37/64	15.00	19/32				
M 17	1.50	15.50	39/64	16.00	5/8	18.00	45/64	18.50	47/64
M 18	2.50	15.50	39/64	16.50	41/64	19.00	3/4	20.00	25/32
	2.00	16.00	5/8	16.75	21/32				
	1.50	16.50	21/32	17.00	43/64				
M 19	2.50	16.50	21/32	17.50	11/16	20.00	25/32	21.00	53/64
M 20	2.50	17.50	11/16	18.50	23/32	21.00	53/64	22.00	55/64
	2.00	18.00	45/64	18.50	47/64				
	1.50	18.50	47/64	19.00	3/4				

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Tap & Clearance Drill Sizes

Screw Size	Major Diameter	Threads Per Inch	Minor Diameter	Tap Drill				Clearance Drill			
				75% Thread for Aluminum, Brass, & Plastics		50% Thread for Steel, Stainless, & Iron		Close Fit		Free Fit	
				Drill Size	Dec. Eq.	Drill Size	Dec. Eq.	Drill Size	Dec. Eq.	Drill Size	Dec. Eq.
0	.0600	80	.0447	3/64	.0469	55	.0520	52	.0635	50	.0700
1	.0730	64	.0538	53	.0595	1/16	.0625	48	.0760	46	.0810
		72	.0560	53	.0595	52	.0635				
2	.0860	56	.0641	50	.0700	49	.0730	43	.0890	41	.0960
		64	.0668	50	.0700	48	.0760				
3	.0990	48	.0734	47	.0785	44	.0860	37	.1040	35	.1100
		56	.0771	45	.0820	43	.0890				
4	.1120	40	.0813	43	.0890	41	.0960	32	.1160	30	.1285
		48	.0864	42	.0935	40	.0980				
5	.125	40	.0943	38	.1015	7/64	.1094	30	.1285	29	.1360
		44	.0971	37	.1040	35	.1100				
6	.138	32	.0997	36	.1065	32	.1160	27	.1440	25	.1495
		40	.1073	33	.1130	31	.1200				
8	.1640	32	.1257	29	.1360	27	.1440	18	.1695	16	.1770
		36	.1299	29	.1360	26	.1470				
10	.1900	24	.1389	25	.1495	20	.1610	9	.1960	7	.2010
		32	.1517	21	.1590	18	.1695				
12	.2160	24	.1649	16	.1770	12	.1890	2	.2210	1	.2280
		28	.1722	14	.1820	10	.1935				
		32	.1777	13	.1850	9	.1960				
1/4	.2500	20	.1887	7	.2010	7/32	.2188	F	.2570	H	.2660
		28	.2062	3	.2130	1	.2280				
		32	.2117	7/32	.2188	1	.2280				
5/16	.3125	18	.2443	F	.2570	J	.2770	P	.3230	Q	.3320
		24	.2614	I	.2720	9/32	.2812				
		32	.2742	9/32	.2812	L	.2900				
3/8	.3750	16	.2983	5/16	.3125	Q	.3320	W	.3860	X	.3970
		24	.3239	Q	.3320	S	.3480				
		32	.3367	11/32	.3438	T	.3580				
7/16	.4375	14	.3499	U	.3680	25/64	.3906	29/64	.4531	15/32	.4687
		20	.3762	25/64	.3906	13/32	.4062				
		28	.3937	Y	.4040	Z	.4130				
1/2	.5000	13	.4056	27/64	.4219	29/64	.4531	33/64	.5156	17/32	.5312
		20	.4387	29/64	.4531	15/32	.4688				
		28	.4562	15/32	.4688	15/32	.4688				
9/16	.5625	12	.4603	31/64	.4844	33/64	.5156	37/64	.5781	19/32	.5938
		18	.4943	33/64	.5156	17/32	.5312				
		24	.5114	33/64	.5156	17/32	.5312				
5/8	.6250	11	.5135	17/32	.5312	9/16	.5625	41/64	.6406	21/32	.6562
		18	.5568	37/64	.5781	19/32	.5938				
		24	.5739	37/64	.5781	19/32	.5938				
11/16	.6875	24	.6364	41/64	.6406	21/32	.6562	45/64	.7031	23/32	.7188
3/4	.7500	10	.6273	21/32	.6562	11/16	.6875	49/64	.7656	25/32	.7812
		16	.6733	11/16	.6875	45/64	.7031				
		20	.6887	45/64	.7031	23/32	.7188				
13/16	.8125	20	.7512	49/64	.7656	25/32	.7812	53/64	.8281	27/32	.8438
7/8	.8750	9	.7387	49/64	.7656	51/64	.7969	57/64	.8906	29/32	.9062
		14	.7874	13/16	.8125	53/64	.8281				
		20	.8137	53/64	.8281	27/32	.8438				
15/16	.9375	20	.8762	57/64	.8906	29/32	.9062	61/64	.9531	31/32	.9688
1	1.000	8	.8466	7/8	.8750	59/64	.9219	1-1/64	1.0156	1-1/32	1.0313
		12	.8978	15/16	.9375	61/64	.9531				
		20	.9387	61/64	.9531	31/32	.9688				

October 2019

EAA 485 news

2019 Officers and Committee Chairmen

President/ Newsletter John McKiernan (850) 291-4134 rockyjs7jm@gmail.com

Vice President: Robert Ermer (850) 417-9277 rdepns@bellsouth.net

Secretary/Treasurer:
Mark Rogers
22959 Carnoustie Dr.
Foley, AL 36535
(251) 228-0356
marbren75@yahoo.com

Tech Counselor: Doug Francisco (850) 453-5501
Webmaster drfancisco@cox.net

Young Eagles: Ralph Moser (847) 736-4603 randp@rmoser.net

Flight Advisor: Harry Herman (850) 857-4353 Harry_herman@bellsouth.net

Ray Scholarship Coordinator
Ralph Moser (847) 736-4603 randp@rmoser.net

VMC Club Donna and DeWitt Barker (850) 572-0288 donnab@centurytel.net

EAA and Local Chapter Sites

EAA 485 EAA 1265
EAA HDQTRS EAA 108
Lite Blue Angels EAA 105

Interesting Links
Blue Angel 360 Way cool
Drone Weaponry
Build Your Own ADSB Receiver
F-18 Low Level

Miscellaneous
FAA Notams
Thatcher Build Site
Barnstormers
Skyvector.com Flight Planning, Charts
AirNav.com Airport info, Fuel Prices

Barin OLF ASOS 251 970-2469

Normally meetings will be held at Ferguson Airport (82J) (Uni **122.8**) on the **Second Saturday** of each month at 10:00 AM unless otherwise posted. Please check the if flying in for important info.

Go past the main airport entrance and take the next left. Go thru the gate and make a left on the gravel road. Make a right past the T hangar you'll see our building down on the left side. Anyone interested in general aviation and building or restoring aircraft are welcome.

For more info contact:

John McKiernan 850 291-4134
rockyjs7jm@gmail.com

Home Of The
PANHANDLE PELICANS

EAA 485 Pensacola, FL

2019 82J Monthly Pancake Breakfast Sched
Aug 17th, Sep 21st, Oct 19th, Nov 16th, Dec 21st.

Send email changes and bad newsletter links to John rockyjs7jm@gmail.com

Famous Aviation Quotes

"To operate your seat belt, insert the metal tab into the buckle, and pull tight. It works just like every other seat belt; and, if you don't know how to operate one, you probably shouldn't be out in public unsupervised."

"Ladies and gentlemen, we've reached cruising altitude and will be turning down the cabin lights. This is for your comfort and to enhance the appearance of your flight attendants."

"Please be sure to take all of your belongings. If you're going to leave anything, please make sure it's something we'd like to have."

"Thank you for flying on our airline. We hope you enjoyed giving us the business as much as we enjoyed taking you for a ride."

"Please take care when opening the overhead compartments because, after a landing like that, we're sure as hell everything has shifted."

"In the event of a sudden loss of cabin pressure, masks will descend from the ceiling. Stop screaming, grab the mask, and pull it over your face. If you have a small child traveling with you, secure your mask before assisting with theirs. If you are traveling with more than one small child, pick your favorite."

"Weather at our destination is 50 degrees with some broken clouds, but we'll try to have them fixed before we arrive. Thank you"

"Your seat cushions can be used for flotation; and in the event of an emergency water landing, please paddle to shore and take them with our compliments."

2019 Events Calendar

Saturday Aug 10th, 1000
Place: EAA 485 Clubhouse

Pledge
Introductions
Guests
Scholarship Update Bill Diaz
Young Eagles Craig Spoke
VMC Club Coordinator
Member aircraft/project update
Weight and Balance John
New Business
OCT Chapter Video

Lunch $5 suggested donation

Calendar

Future Meeting Dates:

Oct	**26th**	Young Eagles Rally
Nov	**9th**	**Elections**
Dec	**14th**	
Jan	**11th**	

Fly Ins:

Thomasville, GA	**TVI**	**Oct 11-13**
SERFI	GZH	**Oct 18-20**
Blue Angels Homecoming		**Nov 8-9**

2004 RV8A Total Time 400 hours airframe and engine since major overhaul $85K

Lycoming IO-360 180 HP Sensenich fixed pitch prop
Well built and maintained aircraft. Complete engine and airplane logs. Condition inspection August 2019 - Will be sold with new annual.
New PC680 battery
Complete Dynon 10" Skyview System:

- Full EMS system (CHTs & EGTs, Fuel Flow, RPM, MAP, Oil Press , Oil Temp, Fuel Press, OAT
- Dual axis autopilots with electric elevator trim
- SV Knobs Panel
- SV Autopilot Panel
- Dynon SV-472 ADS-B-In Dual Channel Receiver

Stratus ESG ADSB-Out transponder Installed September 2017
Microair Com #1
Garmin 300XL GPS/Comm #2 (enroute and non-precision IFR certified)
Garmin GMA 240 Audio Panel.
No Nav at present however tail VOR antenna and coax cable run to instrument panel
Great Instrument panel setup
2 ¼" backup Airspeed , Altimeter, Vertical Speed
Separate Lift Control pneumatic stall indicating system.
Rear seat rudder pedals. (currently uninstalled)
Ram mount for tablet.

This is a sweet flying economical aircraft at 8500' leaned it flies 150 kts TAS @ 8.0 gph

Contact: John McKiernan 850 291-4134 rockyjs7jm@gmail.com