

# 67 YOUNG EAGLES FLOWN YEAR TO DATE



August 2019

Home of the  
"Panhandle Pelicans"

[Squawk 485](#)

**EAA 485**



Monthly Meeting Ferguson 82J  
Saturday August 10th @ 1000  
[Details](#)

## President

John McKiernan

[rockyjs7jm@gmail.com](mailto:rockyjs7jm@gmail.com)

Cell - (850) 291-4134

Hello Everyone,

The dog days of summer have finally reached us. Not only does can the heat affect our physical and mental well being, it also can significantly reduce your aircrafts performance. Make sure to keep adequately hydrated and at the first signs of distress get inside a cool area and drink water.



## RAY AVIATION SCHOLARSHIP UPDATE

[Ralph Moser](#), Chapter 485 Coordinator

Nick continues to move along toward his Private Pilot Rating. He took one practice written exam recently, was not satisfied with the results, and plans to study a bit more before tackling another. Then the for-real FAA written. I'll bet a few of us are cringing, remembering our first experiences with the "FAA written exam" style of multiple choice questions. After all, it's

Chapter meeting convened at 1015 on 13 July 2019 by President John McKiernan. Approximately 18 members were in attendance.

Several motions were introduced and carried.

- The chapter will pick up the bill for renters insurance for our Ray Scholarship candidate, Nick Hanssen, 261 dollars.
- The Chapter will allot funds to purchase window coverings for our Clubhouse.
- Ralph Moser briefed the chapter, with video on the progress of Nick Hanssen our Ray scholarship candidate. Progressing well past solo.
- Ralph Moser briefed the chapter on the benefits of being a member of [NAFI](#), the National Association of Flight Instructors. He also put in a pitch for "[Cloud Ahoy](#)", a digital flight planning and review app.
- Treasurer, Mark Rogers reported total Chapter assets of \$10,205.90, which includes \$4,720.03 which are Ray Scholarship funds. Currently the Chapter has 23 paid memberships and 39 delinquent with 7 delinquent for two years.
- Chapter President distributed sign up sheets for a Continental and Airbus tours.
- President also initiated a call for setting up an VMC club for the Chapter
- President pushed for a volunteer to take over the duty of Young Eagles Coordinator.
- Meeting adjourned at 1100 for another Ermer Special Luncheon  
Mark Rogers Sec/Treasurer 485

Pensacola FL



multiple choice, how hard could it be, right...?

The Ferguson flight school is asking Nick to complete the written prior to flying solo cross-countries. Then one more dual night flight, and final landing practice and check ride prep.

As mentioned at the July meeting, we have received the second \$4000 installment from the EAA, awaiting only the final \$2000 after Nick successfully completes his written.

Christian Kidder texted me recently about Nick, noting "I'm very happy with his progress. He is flying really well. Great head work and SA [Situation Awareness]"

Looking to the long-term, next winter's Ray Scholarship chapter application process should start around November. Bill Diaz, Craig Spoke and I will again put a lot of effort into this. I would like to strongly echo John's recent requests to get a new Young Eagles chairperson or chairpersons named for the club. Our chance of getting another Ray scholarship for 2020 without an active Young Eagles program is slim to none. There is plenty of time for someone to organize a fall rally to complete a very successful Young Eagles year for the chapter. We're at 67 rides given; let's go for 100 ! Please consider stepping up !

Ralph

## Farewells

**Chris Hornady** has left our area and the Navy to pursue his aviation interests up in Oshkosh. Unfortunately, Chris couldn't be with us at the July meeting for a proper sendoff. On behalf of the entire chapter we'd like to thank Chris for his excellent work as the Young Eagles Coordinator and also his enthusiasm flying many Young Eagles. He will be missed. We wish him much success in his future aviation endeavors. "**Well Done!**"

## New Members

Chapter 485 has two new members: **Scott Miller & Sam Helmich**. Thank you for joining and **Welcome Aboard!**

## Young Eagles Coordinator

We need a coordinator for our Young Eagle program. You don't need to be a pilot for this position. The YE coordinator does the planning, organizing and conduction of our Young Eagle Rallies and provides an important roll in our Ray Scholarship Candidate program.

Please consider stepping forward and volunteering for this position.

We also need pilots and ground volunteers. It would be nice to have a roster of 10 or more pilots/aircraft that we can count on to participate. It's really a lot of fun and we need to bring new pilots into the program.

I've contacted the EAA to place my name temporarily as the YE coordinator to add continuity to our program.

John

## Density Altitude

Density Altitude is the "effective" altitude based on a Field Elevation corrected for Altimeter setting, temperature and Dew Point or temperature and humidity.) **At Sea Level** on a standard atmospheric day of 29.92" with our typical 90 degree day with 50% humidity would produce a DA of **2276'**. That's a huge increase in DA. For each 10% humidity increase the DA goes up roughly 60'. For each degree of temperature increase the DA goes up 71'.

We need to make sure to take DA into account in our planning and aircraft performance. Our aircraft are producing less power, less lift and less drag.

## Horsepower Reduction

Your horsepower is greatest at standard day ( 15 degrees celsius/59 degrees Fahrenheit and 29.92" ) sea level and decreases as you go up in altitude approximately 3 percent for each 1,000'. Say at sea level, your HP is 160. (Lyc O320)  
At 3000 ft, power loss is  $3 \times .03 \times 160 = 14.4$   
resulting in  $160 - 14.4 = 145.6 \text{ hp}$   
At 5000 ft, power loss is  $5 \times .03 \times 160 = 24.0$   
resulting in  $160 - 24.2 = 136.0 \text{ hp}$   
At 3000 ft, in an A-65 yields a net HP of **59.15**  
Your engine is also running richer at a high



Density Altitude since there are less Oxygen molecules in the Fuel/Air mixture. **Remember** it is recommended to lean the mixture above 3000' DA for best power. Below 3000' it's best to accept the **Rich** mixture to assist with engine cooling.

For more information on Density Altitude and the affect on performance see this website for a discussion and plug in density altitude calculators: [https://wahiduddin.net/calc/calc\\_cf.htm](https://wahiduddin.net/calc/calc_cf.htm)

### Rusty

We plan on having a Rusty workday consisting of cleaning and painting. There are a few maintenance issues that also need some tweaking. I'd like us to have the ability to offer Kindergarten thru Second grade classes the ability to take a ride in Rusty while getting a general idea of what aviation is all about.

I believe there is no better way to reach young people with our message than with some hands on experience. It will take some volunteers to pull this off. Past the 2nd grade most children have reached the minimum age of 8 for Young Eagle flights.

We now have stickers for the children after their Rusty Flight. We simply Sharpie their names in.



Home of the  
PANHANDLE PELICANS

EAA 485 Pensacola, FL

**John**

***I Flew Rusty!***

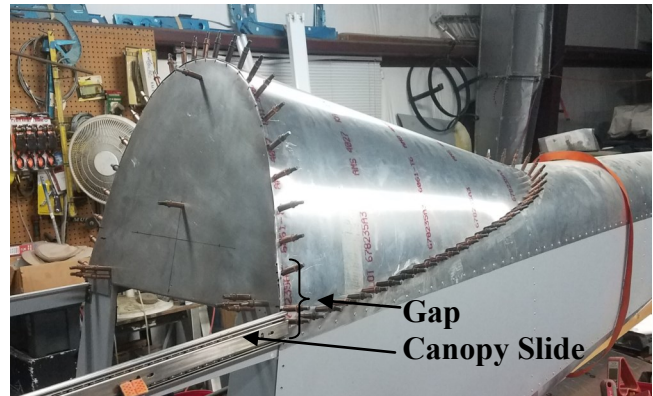
I also have a "Rusty Brochure" approaching its final draft. I'd like some people to have a look and see what needs revising. It's aimed at

both parents and children to read together. Let me know if you would like to participate.

## Thatcher

We finally got around to drilling the turtledeck on the CX-4. We also decided that a compartment through the cockpit bulkhead on the turtledeck may impact the integrity a bit and require an additional bulkhead in the middle of the structure. The overall fit of the turtledeck was very nice. We made the skin 3 - 4" longer than the plans to make the transition to the fuselage skin a slightly better angle and it looked nicer. It was a slow process drilling and clecoing but the skin lays down remarkably well and the turtledeck is very stiff. We will be dimpling and using flush rivets around the bulkhead where the canopy closes.

### Turtledeck Drilled and Clecoed.



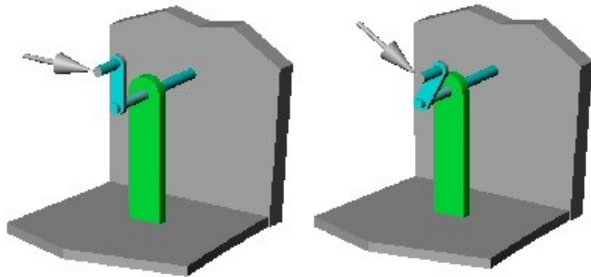
According to the plans, canopy rails are cabinet drawer slides located at a slight angle rising to the aft side. They are very robust and made from some heavy gage metal. They are also located on the outside of the turtledeck skin which when installed causes a gap between the canopy and turtle deck of approximately 3/4" at the lower back edge and up for several inches. We discussed several solutions and have seen pictures of two CX-4s with a



side tilting canopy. We are determining how to make that work and recently positioned the canopy on the turtledeck. It appears that we can trim the canopy and do a temporary test hinge for a tilt. We could always go back to the sliding canopy if necessary.

**Torque and Horsepower**

**Torque** is the rotational equivalent of linear force and is expressed in **Foot/lbs**.



Notice in the above that the force is applied 90 degrees to the handle which is necessary

**Horsepower** is a unit of measurement of **power** (rate of doing work) or the rate at which **work** (Force x Distance) is done. There is a direct relationship between Torque and HP.

All engines are normally rated by their horsepower and we don't see the torque figures unless we dig a little deeper. Torque is measurable while HP is computed. To compute horsepower we need to know the torque produced at an rpm then apply a constant.

**HP = (Torque x RPM) / 5252**

On our aircraft engines it's nearly impossible to find a torque curve. This is strange since we need to know Torque and RPM to compute HP. We can compute torque if there is a power chart that gives us HP @ a specific RPM by just substituting the above equation to solve for torque.

**Torque = (HP x 5225) / RPM**

Let's look at a Lycoming 0320 engine with a constant speed (variable pitch prop) that develops 160 HP at maximum manifold pressure and 2700 rpm at sea level.

**Torque = 160 x 5225 / 2700 = 310 ft/lbs Torque**

OK, so the engine is producing 310 ft/lbs of torque at maximum manifold pressure and RPM. Well we can't cruise at 2700 rpm (maximum) and we can't fly at sea level, at least not for long.

At 5,000' and 23" manifold and 2300 rpm (23 "squared") the engine produces.

**HP = 110 Torque = 250 ft/lbs.**

Horsepower has reduced 31.% (50/160)

Torque has reduced 19% (60/310)

Horsepower is great for blasting off and climbing but what about higher altitude, level flight, long distance cruising? I'm not an expert by any stretch on this subject but here is my .02 worth of opinion.

In my RV-7 at altitude (8,000') I set a pretty low RPM (typically 2100-2250) cruising with WOT (Wide Open Throttle). I also run my Lyc IO 360 LOP (Lean Of Peak) to take advantage of the balanced fuel flow going to my cylinders. Many of us were taught to use "23 and 24 squared" settings. This meant setting 23" MAP (manifold pressure) and 2300 RPM etc. The rule was don't over boost your engine which meant always having equal or higher RPM than MAP (Manifold Pressure).

Of course, we are "over boosting" our engines on every takeoff below about 3,000' density altitude. My RPM is limited to 2700 and I normally see 29"+ MAP during takeoff with WOT. On a fixed pitch prop you witness more of an over boost condition during the takeoff due to a much lower rpm. If we're looking for efficiency in operating our engines in cruise we sure don't want to run our engines at the peak horsepower available. Each aircraft engine is different and a carbureted engine is a different story. Sorry, but leaning a non-injected engine IMO is almost a waste of time there are exceptions. Leaning the mixture slightly, normally results in one of the cylinders stumbling quickly and raising CHT and EGTs without the benefit of getting much benefit. You should stay away from peak pressure in your cylinders which is between 25 degrees LOP to 25 degrees ROP (Rich of Peak).



Years ago we flew our GA engines without any CHT or EGT instruments. Later aircraft engines would have a single CHT gage hopefully connected to the hottest cylinder. Today EMS (Engine Management Systems) are available at a reasonable cost that tell you everything.

While performing a mag check a few weeks ago I had a rough running engine on the number 1 cylinder. Because of the EMS system I could determine the actual plug that was misfiring. I managed to clear it by doing a low power lean burn and went and flew. For troubleshooting problems and being able to see the health of each cylinder in operations is well worth the cost of the system.

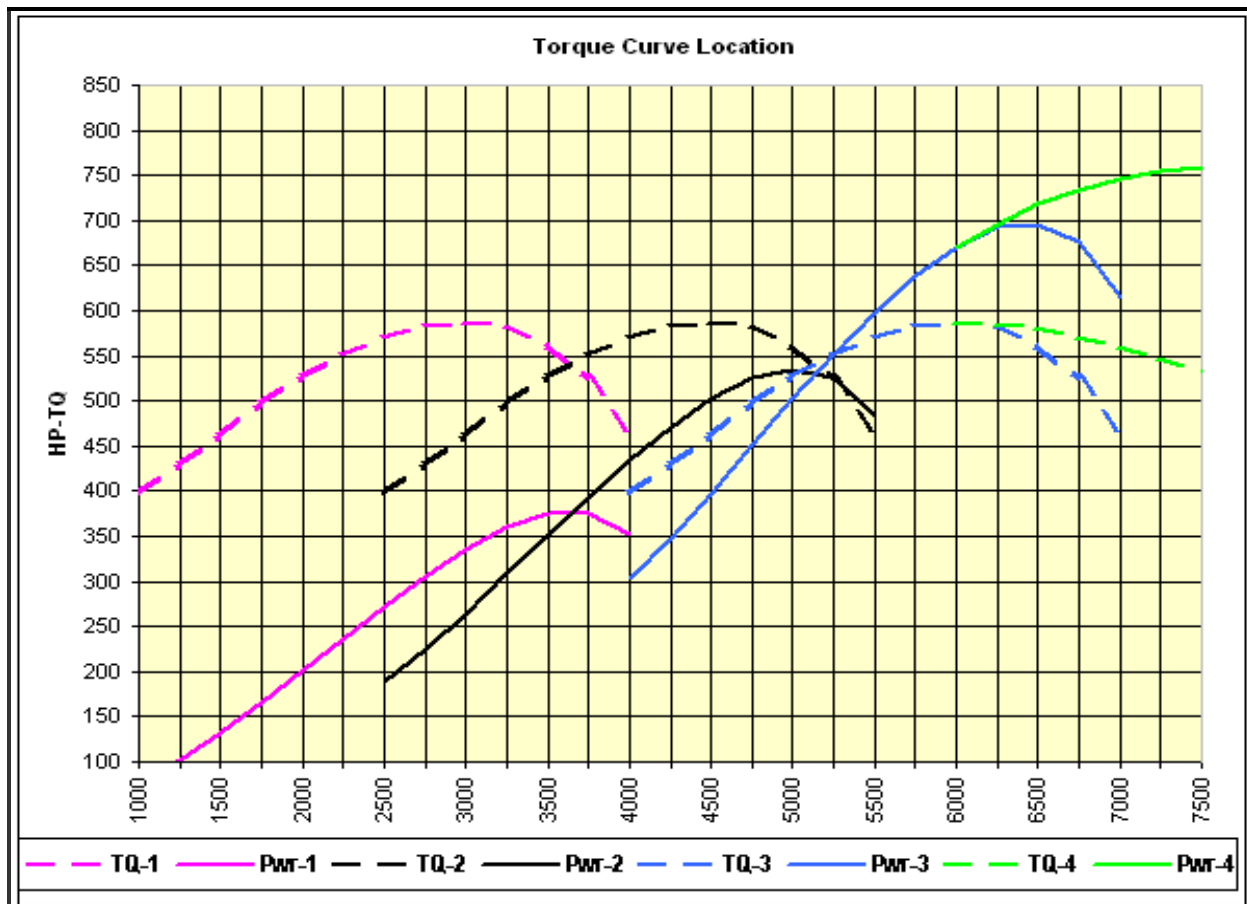
Below is a HP and Torque Curve for a big power engine. Torque is represented by dashed lines and solid lines = HP. It shows the relationship between the two graphically. Notice that the peak torque produced is even regardless of the RPM on the other hand HP is constantly increas-

ing with RPM to a Peak and then trails off.

What is significant is that the maximum torque developed is equal at around 585 ft/lbs and the shape of the torque curves merely shift right with increasing HP.

Let's take a look at the relationship of horsepower. Since we know HP is computed and based on  $(\text{Torque} \times \text{RPM} / 5225)$  the peak horsepower occurs at a higher rpm. Lastly, take a good look at the horsepower curves. Each one yields the same horsepower at two different rpms (the green curve is cutoff). Look at the black curve. It reaches 500 HP at 4500 and 5250 RPM. At 4500 RPM the engine produces 585 ft lbs of torque and at 5250 about 480 ft/lbs. Running this engine above 5000 rpm is just increasing wear on the engine without benefit and wasting energy.

Next month we'll look at a torque curve for an aircraft engine. John





## ICAO Flight Plan Implementation

Thanks to Ralph Moser for the heads up about the ICAO flight plan implementation date. He also sent me the link to the following article. I checked at the FAA and here is what I found.

***Note: Flight Service Stations planned transition to an ICAO only format for domestic filers has been delayed. When completed, FSS will no longer accept the Domestic or NAS format flight plan. Once an updated timeline is available, it will be published on this site.***

An ICAO format is fairly simple once you use it, however, getting the correct aircraft equipment codes is a little more difficult than our present US system.

Although this article is targeted at Ipad users most other aviation apps both OS and Android should be very similar.

Many pilots today still use the domestic flight plan form to file VFR, DVFR and IFR flight plans. The actual filing procedure has evolved over the years from pilots filling out these forms and handing them directly to an FSS briefer, to calling in the information to a briefer over the phone, to today's modern system of submitting it directly from an iPad app.

You've probably heard by now that the FAA is doing away with this form and will eventually require all pilots to use the ICAO flight plan form when submitting flight plans. Those that have been flying internationally are already familiar with the layout, as it's the same form that's been in place for many years.

Fortunately, most of the major iPad apps and online web planning services have been updated to include the ICAO flight plan form as an option when submitting a flight plan, so the infrastructure is in place to make it an easy transition for you. After a quick glance, you'll notice that the ICAO form requires much of the same information as the domestic form. The big difference is that you'll need to include your airplane's navigation, communication, surveillance (transponder) and survival equipment in greater detail. While this may seem

intimidating at first, you'll only need to do it once when setting up your airplane's profile in the app and it'll be saved for future use. Here we're going to take a look at the actual information needed and some sample airplane configurations to help make this initial setup easier.

## Setting up your airplane profile

The ICAO flight plan form requires you to identify each part of your avionics configuration. We're going to focus on ForeFlight, Garmin Pilot and FltPlan.com for this discussion since they are the 3 most widely-used flight planning apps that offer ICAO flight plan support. While all 3 ultimately require the same set of information, some of the equipment requirements are grouped together differently in each program, which can lead to confusion. For that reason, we're going to help you identify your equipment first, which will make it easier to then enter in your specific application.

In ForeFlight, go to the More tab, select Aircraft from the options on the left, and here you can either add a new aircraft or modify an existing one. You'll see fields to enter the ICAO equipment details towards the bottom of the screen after selecting one of the N#s from the list.

In Garmin Pilot, select Home at the top left of the screen, tap Settings from the Menu icons, and then choose Aircraft from the options on the left. Just like with ForeFlight, you can either add a new aircraft or modify one of your existing profiles.

FltPlan.com app users can use the web interface to enter flight plans, and this is also the place to go to enter your ICAO aircraft data. Once logged in, select Settings from the menu on the left side of the screen, and then A/C ICAO Data.

The exact layout of each app's aircraft profile data-entry screen varies a bit, but in the end, they're all looking for the same information to ensure you meet the ICAO requirements:



## Basic Airplane Data–

The first step is to enter the standard data, like N#, aircraft type, color and the home airport. Something new you'll see is Wake Turbulence Category, and you'll enter Light (L) here when under 15,500 lbs.

## Communication Radios–

Most GA airplanes are equipped with VHF radios, so this is the only selection necessary here. If your radio has 8.33 kHz spacing and allows you to select the 3rd decimal place when tuning in a frequency (e.g. 122.975 vs. 122.97), select that option as well.

## Navigation and Approach Aids–

Here you'll specify which type of navigation radios are on board. The most common selections are ADF, GPS (listed sometimes as GNSS), DME, ILS, VOR and LPV (if you have an approach-approved WAAS GPS). You can also use the "S" code if you have the standard configuration of VOR, VHF radio and ILS receiver. If you have a GPS receiver that meets a minimum level of performance-based navigation (see next bullet point on PBN), you'll also use the "R" code here to indicate that capability. You probably don't have any of the other equipment options listed in this group like ACARS/SATCOM/CPDLC (unless you own an Airbus or a Boeing), so skip those options and continue on.

## Performance-Based Navigation (PBN)

This grouping is used to identify the RNAV & RNP capabilities of your GPS receiver if installed. This is one of the more confusing aspects of the form, but fortunately, Garmin publishes a "cheat sheet" to help you out if you have a Garmin GPS or glass cockpit system in your panel. First, go to the [Garmin ICAO Flight Plan](#) help page, and scroll to the bottom to download the Garmin Flight Plan Information Excel file. In this file, you'll see 3 tabs across the bottom — choose the first one, labeled ICAO Flight Plans & Eligibility. This will list out exactly what codes to select in the PBN category for your par-

ticular setup.

## Surveillance–

The upcoming ADS-B out requirement has expanded the number of transponder options and configurations available. There are 2 parts to the ICAO equipment requirement: first, identify the transponder type, and second specify the ADS-B capabilities. If you have a Garmin transponder installed, refer back to their Excel spreadsheet and go to the 3rd tab, labeled ICAO Surveillance Equipment for help. If you're not ADS-B out equipped, you'll only enter one code—most likely code "C" for a Mode C transponder or code "S" for a Mode S transponder.

## Survival Equipment–

The last step is to add is any survival equipment on board, including life jackets, emergency radios and dinghies. In Garmin and FltPlan.com you'll enter this data when setting up the aircraft profile, while ForeFlight has you list any survival equipment when filling out each individual flight plan form.

## ICAO Flight Plan Tips

It doesn't take long to be overwhelmed by all the information required. Take your time and be thorough with your airplane's assessment. Garmin Pilot includes helpful tips for each field while filling out the data, and ForeFlight offers an [ICAO Filing Manual](#), How-to blog and [video](#) to guide you along the way.

Check with your avionics manufacturer for help on specific equipment codes to select. The best advice is if you're unsure of whether or not you have a piece of navigation equipment on the list, leave it unchecked, as this is what ATC will look at when clearing you for advanced routes and procedures. It's not the end of the world if you mess this up—it's more important for high-altitude RVSM aircraft, international flights and when flying to busy airports where RNAV arrivals and approaches are used. If you're still unsure, check with your avionics manufacturer, as they will be able to help you identify the specific codes for your GPS and transponder configuration.



We came across one point of confusion to be aware of: the code B1 is used in two different areas and means 2 completely different things. In the surveillance section, it is used to categorize an ADS-B transponder with dedicated 1090 MHz ADS-B “out” capability. You’ll also see B1 in the PBN section, which is used to identify RNAV 5 capability.

Some of the forms will also ask for your Mode S transponder’s unique Hex Code, which is required if you’re equipped with an ADS-B out transponder. You can look up your code using your airplane’s N# on the [FAA registry site](#). Finally, we’ll point out that you only should identify certified, panel-mount ADS-B in/out equipment in the Surveillance section, and not portables. While there are equipment codes for ADS-B in capabilities, portable receivers like Stratus and Garmin GDL-39 should not be included here.

### Sample aircraft:

Putting this all together, here are some example configurations and respective equipment codes to select based on Garmin’s Excel file:  
**Cessna 172 Dual Nav/Com, Bendix/King Mode S transponder, ADF**

ICAO Equipment: “S” (standard VOR, VHF, ILS), “F” (ADF)

ICAO Surveillance: “S” (Mode S Transponder)

ICAO PBN: leave this blank, since you’re not RNAV/GPS equipped

**Cirrus SR22 Dual Garmin 430W Nav/Comm/GPS, Garmin GTX 330ES Transponder**

ICAO Equipment: “S” (standard VOR, VHF, ILS), “Y” (VHF 8.33 kHz spacing), “G” (GNSS), “B” (LPV), “R” (PBN approved)

ICAO Surveillance: “L” (Mode S Transponder, Enhanced Surveillance, Extended Squitter), “B1” (ADS-B with dedicated 1090 MHz ADS-B “out” capability)

ICAO PBN: A1, B2, C2, D2, L1, O2, S1, S2 (RNAV 10/5/2/1, RNP 4/1/Appch)

**Bonanza A36 Garmin G500, Garmin GTN650 Nav/Comm/GPS, Garmin GTX 327 Mode C transponder, Garmin GDL88 ADS-B transceiver**  
ICAO Equipment: “S” (standard VOR, VHF, ILS), “Y” (VHF 8.33 kHz spacing), “G” (GNSS), “B” (LPV), “R” (PBN approved)

ICAO Surveillance: “C” (Modes A and C transponder), “U2” (ADS-B “out” and “in” capability using UAT)

ICAO PBN: A1, B2, C2, D2, L1, O2, S1, S2 (RNAV 10/5/2/1, RNP 4/1/Appch)

### Filing an ICAO Flight Plan

The ICAO flight plan form in ForeFlight looks very similar to the FAA domestic form. So here’s the good news—all the hard work is now behind you. Once your aircraft profile is set up in the app, filing the actual ICAO flight plan before a flight is really no different than filing a domestic flight plan. In ForeFlight go to the Flights tab, and at the top of the form select ICAO as the type, instead of FAA/Domestic. This is filed the same way through Flight Service, and the main difference is you’ll see a few extra fields to list out any emergency equipment on board.

Garmin Pilot handles ICAO flight plans the same way. When in the Trip Planning section of the app, tap the Filing Information at the top of the flight plan form, and select ICAO as the form type.

We highly recommend that you take the time now before the deadline to get your airplane properly configured and start using the ICAO method for upcoming flights, which will help make the transition a non-event.



August 2019 <sup>9</sup>

EAA 485  
news

Approved OMB No. 2120-0026  
Exp. 7/31/2020

U.S. Department of Transportation Federal Aviation Administration		International Flight Plan	
<b>PRIORITY</b> <b>&lt;=FF</b>	<b>ADDRESSEE(S)</b> _____ _____ _____ <b>&lt;=</b>		
<b>FILING TIME</b> ____	<b>ORIGINATOR</b> _____ <b>&lt;=</b>		
<b>SPECIFIC IDENTIFICATION OF ADDRESSEE(S) AND / OR ORIGINATOR</b> _____ _____			
<b>3 MESSAGE TYPE</b> <b>&lt;=(FPL</b>	<b>7 AIRCRAFT IDENTIFICATION</b> _____	<b>8 FLIGHT RULES</b> — <input type="checkbox"/>	<b>TYPE OF FLIGHT</b> — <input type="checkbox"/> <b>&lt;=</b>
<b>9 NUMBER</b> — _____	<b>TYPE OF AIRCRAFT</b> _____	<b>WAKE TURBULENCE CAT.</b> / <input type="checkbox"/>	<b>10 EQUIPMENT</b> — _____ / _____ <b>&lt;=</b>
<b>13 DEPARTURE AERODROME</b> — _____	<b>TIME</b> _____ <b>&lt;=</b>		
<b>15 CRUISING SPEED</b> — _____	<b>LEVEL</b> _____	<b>ROUTE</b> _____	
_____ _____			
_____ <b>&lt;=</b>			
<b>16 DESTINATION AERODROME</b> _____	<b>TOTAL EET</b> HR MIN _____	<b>ALTN AERODROME</b> _____	<b>2ND ALTN AERODROME</b> _____ <b>&lt;=</b>
<b>18 OTHER INFORMATION</b> — _____ _____			
_____ <b>&lt;=</b>			
<b>SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES)</b>			
<b>19 ENDURANCE</b> HR MIN — <b>E/</b> _____	<b>PERSONS ON BOARD</b> <b>P/</b> _____	<b>EMERGENCY RADIO</b> UHF VHF ELT <b>R/</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
<b>SURVIVAL EQUIPMENT</b> POLAR DESERT MARITIME JUNGLE <input type="checkbox"/> / <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<b>JACKETS</b> LIGHT FLUORES UHF VHF <input type="checkbox"/> / <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
<b>DINGHIES</b> NUMBER CAPACITY COVER COLOR <b>D/</b> _____ <b>C/</b> _____ <b>&lt;=</b>			
<b>AIRCRAFT COLOR AND MARKINGS</b> <b>A/</b> _____			
<b>REMARKS</b> <b>N/</b> _____ <b>&lt;=</b>			
<b>PILOT-IN-COMMAND</b> <b>C/</b> _____ <b>)&lt;=</b>			
<b>FILED BY</b> _____	<b>ACCEPTED BY</b> _____	<b>ADDITIONAL INFORMATION</b> _____	

FAA Form 7233-4 (7/15)

Pensacola FL



## 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 Udriš 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](http://EAA.org/proficiency), in the Pilot Proficiency Center during EAA AirVenture Oshkosh 2019, and at a meet-and-greet at the CloudAhoy booth on Wednesday at noon during AirVenture.

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](http://Cloudahoy). He gave an excellent overview of it's capabilities. It's some very impressive software.

## Continental Motors Tour

During our July meeting I passed around an interest sheet about scheduling a tour at the Continental Motors assembly plant. In the interim I contacted Neal George from Continental and he told me that the move in date for the new facility is slated for August 19th. They were doing validity testing of CNC equipment and some other components.

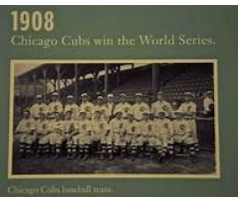
Our tour won't be taking place until the September time frame. We will also look at touring the Airbus facility at the same time.

The sign up sheet will be available at the meeting on the 10th of August.

## SERFI (Southeast Regional Fly-in)

**Evergreen, AL Oct 18,19,20**

There will be a SERFI planning meeting around the middle of September. If you have an input let us know and we will present it.



### Take Me Out to the Ball Game

I imagine all of us know the lyrics to Take Me Out to the Ballgame, or do we? Did you know that “Take Me Out To The Ball Game” was written by a guy who had almost no interest in the sport? In fact, after he came up with the idea for the song, it took Jack Norworth over thirty years to get around to taking in his first major league game.

At the turn of the last century, Norworth was a vaudeville entertainer, best known for his spirited hoofing and blackface routines. He also dabbled in songwriting.

The story goes that in the summer of 1908, he was riding the New York subway when he saw a sign: “Baseball Today at the Polo Grounds!” The ad for the New York Giants home game got him thinking. Was there a better example of a nationally shared experience than a ball game? Always on the lookout for commercial ideas, he scribbled down a verse and a chorus with the title “Take Me Out To The Ball Game” (his original handwritten lyrics are now on display in the Baseball Hall of Fame).

Norworth took the words to composer Albert Von Tilzer, his collaborator on hits such as “Meet Me In Apple Blossom Time” and “Honey Boy.” Von Tilzer wasn’t much of a baseball fan either, but he recognized a potential hit and in less than an hour, dashed off a jaunty melody that fit the lyric like a well-oiled glove.

The first recording of “Ball Game,” by Edward Meeker, was a huge success. Sheet music and piano rolls of the song flew out of music stores. While there had been other baseball songs - “The Baseball Polka,” “It’s Great at a Baseball Game” and the similarly titled “What really knocked the song out of the park, of course, was its almost instant ubiquity at baseball stadiums across the country.

It was sung in the middle of the 7th inning. Eventually the additional versus of the

song were benched and only the chorus was sung.

The original song of 1908 was about a lady named Katie Casey. In 1927 Norworth would write new lyrics to the song featuring yet another lady named Nelly Kelly.



Here’s the lyrics to Take Me Out to the Ballgame as written in 1908.

Katie Casey was base ball mad.  
Had the fever and had it bad;  
Just to root for the home town crew,  
Ev’ry sou Katie blew.

On a Saturday, her young beau  
Called to see if she'd like to go,  
To see a show but Miss Kate said,  
"No, I'll tell you what you can do."

"Take me out to the ball game,  
Take me out with the crowd.  
Buy me some peanuts and cracker jack,  
I don't care if I never get back,  
Let me root, root, root for the home team,  
If they don't win it's a shame.  
For it's one, two, three strikes, you're out,  
At the old ball game."

Katie Casey saw all the games,  
Knew the players by their first names;  
Told the umpire he was wrong,  
All along good and strong.  
When the score was just two to two,  
Katie Casey knew what to do,  
Just to cheer up the boys she knew,  
She made the gang sing this song:  
"Take me out to the ball game,  
Take me out with the crowd.  
Buy me some peanuts and cracker jack,  
I don't care if I never get back,  
Let me root, root, root for the home team,  
If they don't win it's a shame.  
For it's one, two, three strikes, you're out,  
At the old ball game."



Take Me Out to The Ball Game (1908).mp3



A “sou” was slang in the day for low denomination coins similar to “change”.

## Take Me Out to the Ball Game 1927 Version

Nelly Kelly love baseball games,  
Knew the players, knew all their names,  
You could see her there ev'ry day,  
Shout "Hurray," when they'd play.  
Her boy friend by the name of Joe  
Said, "To Coney Isle, dear, let's go,"  
Then Nelly started to fret and pout,  
And to him I heard her shout.

Chorus

Nelly Kelly was sure some fan,  
She would root just like any man,  
Told the umpire he was wrong,  
All along, good and strong.  
When the score was just two to two,  
Nelly Kelly knew what to do,  
Just to cheer up the boys she knew,  
She made the gang sing this song.

Chorus

Here's a video of the 1927 song  
[1927 Take Me Out to the Ballgame](#)

So now you know the rest of the story!

## ADSB Validation

We all know that the ADSB deadline is approaching on January 1st. By estimates it looks like a maximum of 100,000 GA aircraft will be ADS-b Out equipped from the 160,000 or so GA aircraft.

OK so you've got your airplane ADSB equipped and your compliant because you check your equipment right? I imagine most aircraft that are ADSB equipped are not verifying their equipment at some regular interval.

It's not hard to check your equipment.

After making a flight just call up the following link: [Public ADS-B Performance Report](#).

After filling in the report data and submitting you normally will get a report back via Email within 30 minutes.

Basically if you don't see any **RED** highlighted areas your equipment is functioning correctly and your system is compliant for operation in Rule (Control) Airspace.

Here is a link to a guide for the Performance Report if you have a problem or just want to know what the NIC, NICv, NICp etc stand for:

<https://adsbperformance.faa.gov/paprusersguide.pdf>

If your equipment is faulty you can be denied entry into controlled airspace.

Mike Rickett's new ride:  
Panther



This is a really nicely constructed aircraft in immaculate condition. Mike helped me install a GDL 82 system in his aircraft last Saturday for ADS-b Out Compliance. He received a good clean PAPER report with no discrepancies.

Good Luck with the new bird!



## 2019 Officers and Committee Chairmen

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## 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

HWY 98

Blue Angel Parkway

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](mailto: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](mailto:rockyjs7jm@gmail.com)

Unsure about Tefzel 22759/16- wire current capacities. Here's an easy chart to follow.

Wire Size (AWG)	Current Rating*	Insulation Diameter (Inches)
24 Gauge	5.1 amps	0.045"
22 Gauge	6.3 amps	0.052"
20 Gauge	8.9 amps	0.060"
18 Gauge	11.4 amps	0.071"
16 Gauge	13.9 amps	0.079"
14 Gauge	17.7 amps	0.095"
12 Gauge	24.0 amps	0.120"
10 Gauge	32.9 amps	0.138"

\* Current Rating is based on continuous duty for wires in bundles, harnesses, or conduit at sea level.

Trivia:

What Rock singer sang the words?  
"scuse me while I kiss the sky"

A whole bunch of Van's RV aircraft



Jimi Hendrix "Purple Haze" 1967

## 2019

### Events Calendar

**Saturday Aug 10th, 1000**  
**Place: EAA 485 Clubhouse**

- Pledge**
- Introductions**
- Guests**
- Ralph Moser Scholarship Update**
- Continental Motors Tour Sign Up**
- Members Ratings & Aircraft Sheet**
- Young Eagles Coordinator**
- VMC Club Coordinator**
- Member aircraft/project update**
- New Business**
- AUG Chapter Video**

Lunch \$5 suggested donation

### Calendar

#### Future Meeting Dates:

Sep 14th  
 Oct 12th conflict with Thomasville  
 Nov 9th

Fly Ins:

**Triple Tree Fly-in** SC00 Sep 2-8  
**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. All SBs complied with including Aero Splat nose gear reinforcement and skid plate.

New PC680 battery

Complete Dynon 10" Skyview System:

Full EMS system (4 CHT & EGT, Fuel Flow, RPM, MAP, Oil Press, Oil Temp, Fuel Press, OAT)

Dual axis autopilots with electric trim

SV Knobs Panel

SV Autopilot Panel

Dynon ADSB-In Dual Channel Receiver

Stratus ESG ADSB-Out transponder Installed September 2017

Garmin 300XL GPS/Comm #2 (enroute and non-precision IFR certified)

Microair Comm #1

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 1/4" backup Airspeed, Altimeter, Vertical Speed

Separate Lift Control pneumatic stall indicating system.

Rear seat rudder pedals. (currently uninstalled)

Ram mount for tablet

Well documented maintenance record. Full Engine logbooks

This is a sweet flying aircraft at 8500' leaned it flies 150 kts TAS @ 8.2 gph

Contact: John McKiernan 850 291-4134 [rockyjs7jm@gmail.com](mailto:rockyjs7jm@gmail.com)

