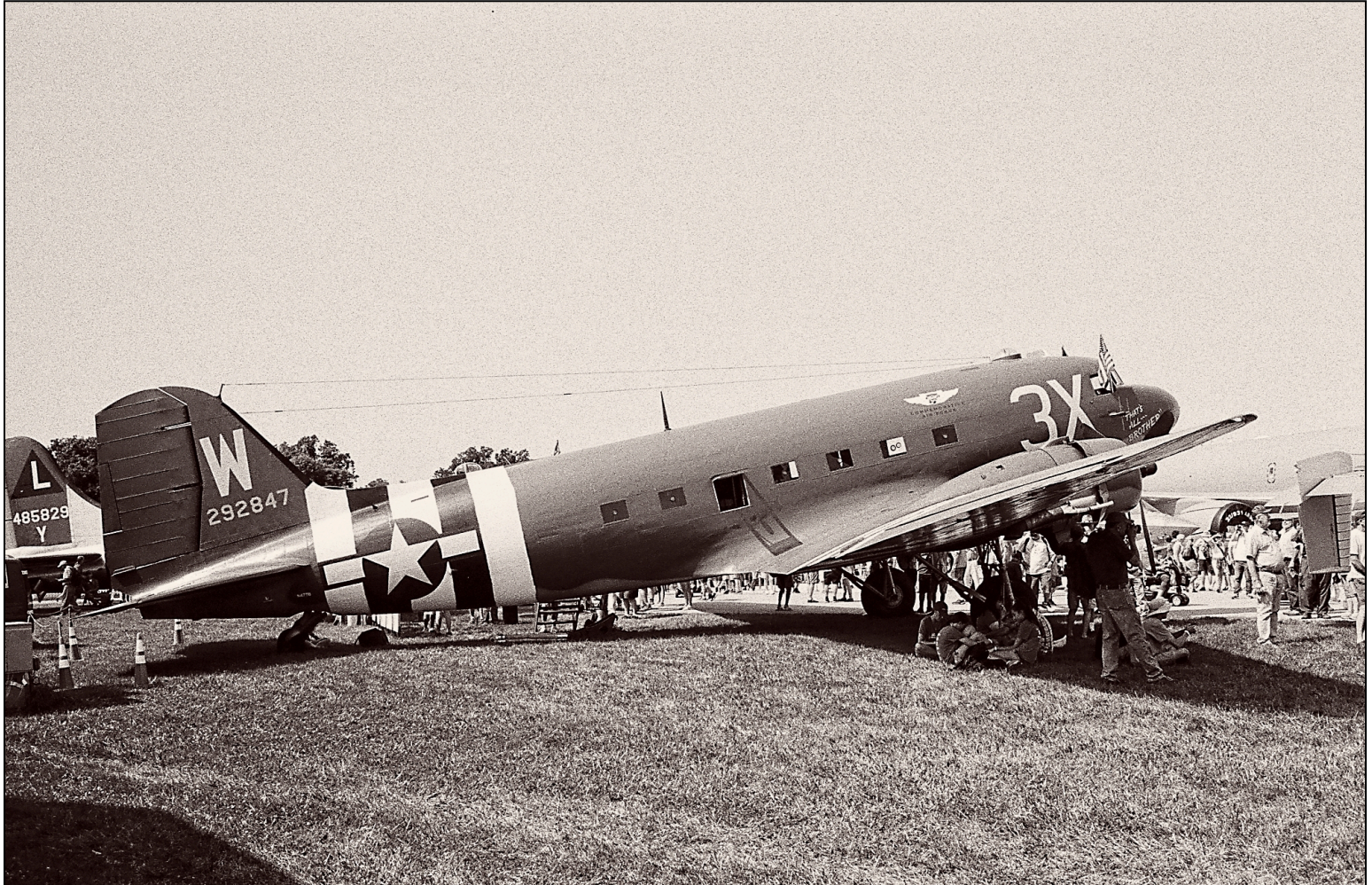

Pittsburgh-Butler Region Experimental Aircraft Association - Chapter 857

EAA 857 NEWSLETTER



IN HONOR OF VETERANS DAY 2020

DOUGLAS C47 SKYTRAIN "THATS ALL BROTHER" AT AIRVENTURE 2019

Digitally scanned from film

PRESIDENTS MESSAGE

EAA 857 Members,

We will be conducting the November meeting at KBTP in the conference room. We will conduct this via a virtual Google Meet live stream for those of you who may not wish to attend in person at the airport and Frank Szczerba or I will give you the meeting link to use prior to the meeting,.



Thanks to Chris McGeary, Phil Kriley, and Bob Santolla for the articles published in this months newsletter. They are very much appreciated!

Please note that we will be voting for the nominations for Chapter Officers and a Board Member at this November meeting. We will need a quorum of at least 9 members on hand at the KBTP meeting room to enact this business of the chapter. The Nominees are:

President	Ted Merklin
Vice President	Phil Kriley
Treasurer	Frank Szczerba
Secretary	Rick Schubert
3 year Board Member	Mark Beighey

Current Board Members Bob Santolla and Dan Hood will continue to serve their 3 year term. Gary Marsico rotates off the EAA 857 Board in 2021; Thank you very much Gary for you service to the chapter as a board member.

Traditionally, this Tuesday is the last meeting for 2020 and we will resume meeting on January 19, 2021. Our events for 2021 are currently scheduled per the Board of Directors to include a Young Eagles Day June 12, and Fly-ins with young Eagles on August 15, and September 12. I do not expect us to have a First Day gathering this next year due to the Covid 19 situation as it currently stands.

Finally, be aware, that chapter dues will become due and payable on January 1, 2021.

Please everyone take care of yourselves and your families! See you Tuesday!

Ted Merklin,
President, EAA Chapter 857



MINUTES OF OCTOBER 20, 2020 MEETING

Opening: President Ted Merklin called the meeting to order at 19:00 and led the members in saying the Pledge of Allegiance.

Meeting Attendees: 12 members were present or viewing the live stream on Google Meet.

Program: Jason Frazier of NOAA presented an excellent program on weather forecasting and preflight weather planning.

Previous Meeting Minutes: Reviewed and Approved the minutes of the September 15, 2020 held at Butler Farm Show.

Treasurer's Report: Reviewed and Approved the current bank balances.

Newsletter: The newsletter was distributed September 13, 2020 and uploaded also to the chapter website.

Website: Go to <https://chapters.eaa.org/ea857> in your browser.

Tech Advisor: No Report

Young Eagles: Phil Kriley investigated the new Young Eagles workshop seminars; it will take 1-3 days to put the entire program on. The contact at EAA would not allow us to purchase a sample kit for our review without a commitment to schedule and conduct a workshop. The dates for 2021 Young Eagle events established by the BOD are Saturday, June 12, Sunday, August 15, and September 12

Business:

- **Membership status:** We have 35 paid members. New Member Carl Baker joined in August.
- **Air Academy:** Candidate Zach Jordan had a reservation for late June Basic and desires to go in 2021, however he will be 16 eligible for the Advanced camp but is waitlisted now. We have \$220 in YE Credits we can apply in 2021. EAA has provided registration paperwork to Zach for the 2021 Basic Session Camp.
- **Chapter room:** We will need to purchase rolling carts for the transport of tables and chairs before May 2021 before the first fly-in / YE events. Dan Hood suggested the possibility of building them from scratch.
- **PA Charitable status:** We were issued an exemption for registering as a public charity in PA due to our low level of monies received in year 2019. (<25K). The state issued a correction to the letter noting the reference year 2019.
- **Chapter Anniversary:** October 2020 is the 20th anniversary of the chapter as noted in this month's newsletter by Bob Santolla.

Nominations for Chapter Officers:

President	Ted Merklin
Vice President	Phil Kriley
Secretary	Richard Schubert
Treasurer	Frank Szczerba
B.O.D.	Gary Marsico

Other nominations are welcome at the November meeting.

- **2021 Dues:** Chapter Dues are due on January 1st.
- **Adjournment:** A motion to adjourn at 20:15 was made by Phil Kriley, and seconded by Dan Hood.

Respectfully submitted,

Richard Schubert
Secretary

UPSIDE DOWN IN A STEARMAN

by Chris McGearry

Margot's birthday was in September and I was looking for something unique for a present. Since she is a certified experience junkie, I settled on an open cockpit airplane ride, with aerobatics thrown in for good measure. Looking around, I found a fellow named David Brown who gives rides in his Stearman out of Warrenton-Farquier Airport (KHWY) just south of Warrenton, Virginia. After a few reschedules due to weather, we were finally able to make the trip in early October.

The flight itself is 173 nm, and you can do it as a straight shot as long as you mind your altitude over Latrobe. However, KHWY is within the 60 nm outer boundary of the DC SFRA area, which means you need to take the SFRA online course before flying in that airspace. The course is straightforward, and you only need to take it once. As long as you stay outside of the 30 nm boundary of the Special Flight Rules Area, you don't even need to file a flight plan. I had taken (and passed) the course earlier this summer, so we were good to go.

It was a clear day, and the fall colors were starting to pop (this looks like a banner year for color, BTW). 7500' got us high enough for a smooth flight down and a nice tailwind, at least until we descended into Warrenton airport. Air traffic in that area is just CRAZY! There are at least 22 public and private airstrips within 20 nm of Warrenton, and boy, do you know it! It makes a busy day at Butler County seem like a walk in the park!

We got in early, so we got to top off the tanks and watch David come in with a previous ride. For the aerobatics flight, David has a standard program. He starts with a barrel roll, then a loop, a hammerhead stall and an aileron roll. He explains each one beforehand and then watches you to make sure you're comfortable before proceeding to the next element. Once you've completed all of them, if you're up for it, and Margot, of course, was, he links them all together into one continuous maneuver. Too soon, evidently, it was over and they came back to land. Margot taxied in with a huge grin on her face! Evidently, she also got a Cuban eight and Immelmann added on for good measure.

Then it was my turn. Because you're doing acro, you need to wear a parachute. The chute also serves as your seat cushion and seat back, so climbing in to the cockpit with all that strapped to your back and derriere is "interesting". However, there are a pair of grab handles on the back of the upper wing to make it easier, and you just step on the seat and slide down. Passengers ride in the front cockpit, and there's a PTT button on one of the frame tubes for when you want to talk on the intercom.

The old bird is amazing solid and steady, and the radial engine is incredibly smooth. We did all the individual elements, but I decided not to go through with the final linked maneuver (I'm not as good with roller coasters as Margot). Instead, I got about 10 minutes of stick time, including some steep turns and stalls. I can see why it was such a great trainer. It's very neutral, and extremely responsive to the rudder. On the other hand, you really need to use that rudder (in the RV-9A, the rudder is pretty much un-needed until you're down below about 100 knots). With the Stearman, I see why they say: It's easy to fly, but hard to fly well. David said his Stearman is stressed to 6.5 positive and 3.5 negative Gs, so it's really hard to bend it. Takeoff and landing are at about 60, cruise is about 85, and flat out is about 120. He also said that VNE is 180 mph, and that it's almost impossible to get that high. The fastest he's seen is 165 mph straight down. There's just too much drag from all the struts and flying wires to go faster unless you adjust the prop for speed rather than climb.

...and my half hour was over. He three pointed it onto the runway (8" of oleo travel and 8.00 tires give a very cushy landing) and we taxied back to the ramp. We said our goodbyes and headed back to Butler at 6500', with Margot's grin still plastered on her face. Winner! Looks like I better start thinking about next year.

If you do get down that way, and want an amazing seafood lunch or dinner, head on over to Accomack County airport (KMFV) on the DelMarVa peninsula, across the Chesapeake Bay. Less than 10 minutes drive from the airport is Wachapreague Island House Restaurant on Oyster Bay (757.787.4242). You have several ways to get there: (1) The airport has a crew car. If it's not busy you can borrow it. Be sure to





fill your plane at the airport, and donate a few dollars so that they keep the car running for the next time. (2) If the restaurant isn't too busy, they will send someone over to fetch you. (3) You can call ahead and rent a car at the airport. We were exploring the area, and opted for an Enterprise rental.

No matter which way you get there, the food is great! We sat out on the balcony overlooking the harbor and had fresh oysters, a soft-shell crab sandwich, and chocolate bread pudding to die for. It was so good, we went back the next day for crab bisque, crab cakes, and another chocolate bread pudding. Bon appetit!



TRIP REPORT: KBTP TO JACKSONVILLE, FL

by Phil Kriley

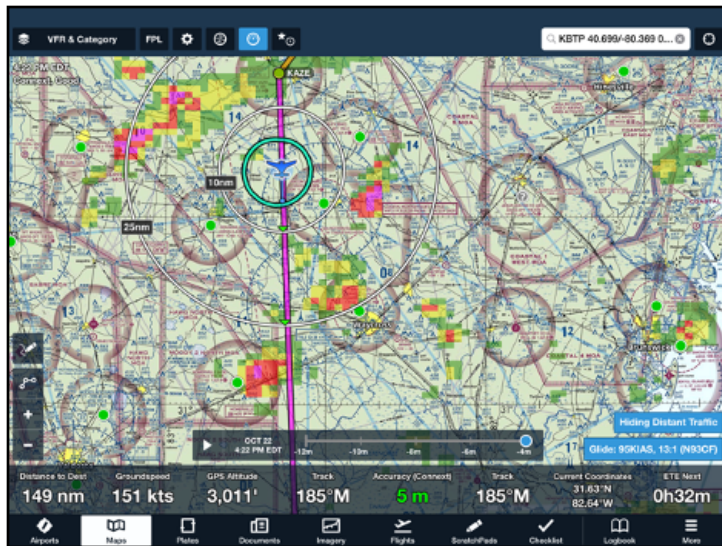
Our son, a Navy pilot flying the P8-A Poseidon, was recently transferred from NAS Whidbey Island in the state of Washington to NAS Jacksonville, FL. He and my daughter-in-law bought a house in St. John's, near the base, and we went down to help them move in (and to visit our new grandson!).

My wife, Robin, and I loaded up the plane (Cozy Mk IV) with my golf clubs, clothing etc. for 8 days and a box of goodies for the new house. We took off at 11:15 on October 22 and headed west to avoid PIT's Bravo. The plan was to climb to 3500 to stay under the outer ring, then turn south when we were clear of the 3000' shelf. Once clear of the Bravo we climbed to 7500', then 8500', and eventually to 10k to stay above the scattered clouds. I carry a pulse/oxymeter and found that we needed to use our O2 bottle to keep our oxygen numbers in the 90's. The planned fuel stop was Aiken, SC, but my bladder had a different plan! So we made a quick pit stop at Shelby (KEHO) after 2.5 in the air. I had forgotten to wear a hat, so I asked if the pilot shop at Shelby could sell me one, but they were kind enough to GIVE me one! They wouldn't even take a donation. Nice place to stop!

So we took off from Shelby and landed at Aiken, SC (KAIK) for fuel after a flight of about 40 minutes. Here is a picture of Aiken's very nice facility.

From Aiken, we had about 2 hours to go to get to North East Florida Regional (KSGJ) which was our final destination. We started out due south, but I diverted to the west to avoid some airspace restrictions. When we got near KLCQ I turned east towards our destination. But the weather was starting to get dicey, as Florida weather often does. Here is a picture from my iPad, using Stratus weather to give you an idea.

By the way, my panel has a new Garmin GNX 375 that displays weather provided by ADS-B, but it is nowhere near as good as the weather from the Stratus. On a recent trip to Kentucky I would have diverted or turned around if I had believed the weather displayed on the Garmin, but easily found a route through using the Stratus/iPad/Foreflight display. Here are a couple photos of the weather we were





flying around on the last leg of the flight.



But finally a beautiful rainbow showed the way to KSGJ!

We arrived at KSGJ at about 5:32 pm.



My son and I are avid golfers, so we made plans to fly down to Kissimmee, meet a friend of ours from Butler who has a winter home near Orlando, and meet him to take the 3 of us to Disney's Lake Buena Vista golf course. Sounds like a plan? Well, the weather was having none of it, giving us less than 900' ceilings at Kissimmee! Fortunately, we had gotten up early enough that we could make the 2.5 hour drive to LBV and meet our friend in time to make our tee time.





The whole family enjoyed a day at one of Jacksonville's beaches.

We had planned to head for home on Saturday, October 31, but the President's visit wouldn't allow that. Weather Sunday and Monday was not good, and Robin needed to be back in Butler Tuesday morning. So she flew home on Southwest from JAX to PIT on Monday where a friend met her and gave her a lift home. My son and I left Tuesday morning in the Cozy at 8:30 under CAVU conditions, of course! We flew 2.5 hours to Shelby and got gas. The airport manager remembered me from our stop on the way down, and noticed I was wearing the hat he gave me. I told him we made sure to stop for fuel to repay his kindness. Great place to stop for fuel!

We took off from Shelby and flew direct to KBTP at 7500'. Not a cloud in the sky and as smooth as it gets! TAS was about 166 kts (if I understand the airspeed indicator correctly).



Ground speed was 152 kts, burning 9.2 GPH.



I thought the plane was performing well.

We had been using flight following the entire trip north, and as we got near PIT we asked if we could transit their Bravo at 7500' and they gave us entry. Here are some nice pictures of Pittsburgh and PIT from 7500' as we cruised by.





So, 5.3 in the air north to south and 5.1 coming home. We saved some time coming home by using flight following to allow us to take a more direct route. We're looking forward to our next trip to Florida!

BUILDING SOMETHING DIFFERENT

By Bob Santolla

The Pitts Special I've been working on is close to 90% complete and what is left to finish is installing the engine, wings, rigging and last but not least the paperwork. The last few years I have transported the Pitts between my Butler and St. Augustine homes to keep the project moving along. But this winter the Pitts will remain in my hangar and await until next spring for continued work. The reason for this is quite simple, it was becoming difficult to get the airplane in and out of my cargo trailer without risk to doing some damage during transport. Storing it for the winter was a better option than fixing "cargo trailer rash".

So not having an airplane project to work on I have decided to keep busy in my shop and build something fun and different. I have decided to build a hydroplane! Now I have never built a boat but I wanted something that could easily fit into my limited work space and it had to go fast.

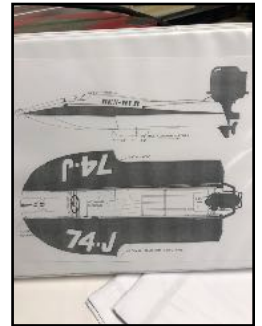
The hydroplane that I'm building is a famous design from the legendary Hal Kelly who designed and raced hydroplanes from the 1940's to the 1960's. Kelly actively raced his designs and regularly introduced new and improved designs. He also was a commercial artist who worked for Popular Mechanix where he contributed artwork, articles and some of his early boat designs which were featured by the magazine.



The hydroplane that I will build is called the "Ben Hur" and is just over 11 feet long and will weigh under 200 pounds and handle outboard motors up to 75 hp. With that horsepower to weight ratio the boat will be very fast! The materials used to build this hydroplane is good old sitka spruce, mahogany, and plywood, the same wood as in aircraft construction.

Working with wood is no stranger to me because that was what the Pitts Special wings were made of. I saved much of the wood from my former Pitts wing spars and will "repurpose" the spruce to become parts of my boat.

Building a boat is very similar to building an airplane. The plans have full size rib drawings and are easy to read with dimensions given in inches and fractions. I place the rib drawings on a flat workbench and cover with wax paper and after I have cut out the parts, I place them on the plans and glue and nail together. So far I have built the left and right girders which form the sides of the hydroplane. I've also built a couple of ribs.



I am using the T-88 epoxy glue that I used to build the Pitts wings but the hardware is different from aircraft hardware. The nails are ring shanked and made from silicon bronze material as are the wood screws, used throughout the boat.

I drove to Palm Beach last week to purchase the special marine grade wood from a wood boat building supplier, and just like aircraft wood, boat wood is expensive. The Okume plywood comes from Africa but is the best marine grade plywood to used in boat building. You don't use the wood from the big box store lumber yards. The mahogany woods come from both Honduras and Africa and the plywood is measured in millimeters such as 2440x1220 which is larger than the standard 4x8 sheet of wood. The mahogany wood is quarter sawn and requires planing to proper thickness.

Boats are much like airplanes in that you are dealing with fluid dynamics instead of aerodynamics but have similar behaviors. The propellers are similar to aircraft props that are measured in diameter and pitch. Boat plans have the same features as airplane plans in that you are working with station lines as well as waterlines and the lofting of rib design. Jigs are needed to guarantee each part will eventually fit together.



I will keep you updated on my progress and talk about the aerodynamics in hydroplane designs and construction. Keep on building airplanes and boats!





EAA 857 - Chapter Meetings and Events for 2020

Meetings are held on the third Tuesday of the month at 7:00 PM in the Conference Room at the Pittsburgh-Butler Regional Airport.

Chapter Meetings	Tuesdays	January 21 February 18 March 17 [CANCELLED] April 21 [CANCELLED] May 19 [CANCELLED] June 16 ZOOM Meeting July 21 at KBTP August 18 at Farm Show September 15 at Farm Show October 20 at KBTP November 17 at KBTP
EAA 857 Chili Cook Off -	Sunday,	February 9
International Young Eagles Day -	Saturday,	June 13 [CANCELLED]
EAA 857 Fly-In and YE -	Sunday,	August 9 [CANCELLED]
EAA 857 Fly-In and YE -	Saturday,	September 13 [CANCELLED]

2020 National Events

Sun 'n Fun -	May 5 - 10	[CANCELLED]
Sentimental Journey -	June 16 - 20	[CANCELLED]
AirVenture Oshkosh 2020 -	July 20 - 26	[CANCELLED]

EAA 857 Chapter Officers for 2020

Use contact@eaa857.org to email the Chapter President. Your request will be forwarded to the appropriate individual.

President	Ted Merklin
Vice President	Phil Kriley
Treasurer	Frank Szczerba
Secretary	Rick Schubert
Newsletter / Web Page	Ted Merklin, Ed.
Young Eagles	Phil Kriley
Technical Advisors	Chuck Potts Bob Santolla
Board Members	Dan Hood 2020-2022 Bob Santolla 2020-2021 Gary Marsico 2020