

Pittsburgh-Butler Region Experimental Aircraft Association - Chapter 857

# EAA 857 NEWSLETTER



Where our world of Aviation was Born!
Kill Devil Hills, NC
The Wright Brothers National Memorial



# **Presidents Message**

The chapter is really busy! We have a Ray Scholarship potential awardee and the Ford Tri-motor coming! More details to follow. I just got back from 2 weeks in Europe, and while some parts of the trip were amazing, it's great to be back in the USA!

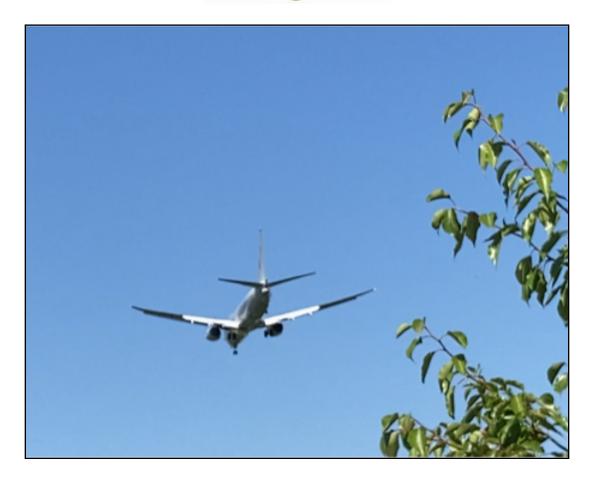


I had some fun this past Friday - my son sent me a note the night before that he was flying a training mission from NAS JAX to PIT and would be shooting some touchand-goes...did I want the details? Heck yeah! So Friday morning he gave me the info so I could follow him on Flight Aware and monitor his calls with PIT approach and tower. He also sent me a link to a site for plane watchers that had some suggestions as to where to watch from. I selected a site on Ewing road across from an Aetna health facility that worked out really well. Here are a couple of

shots for you.







At present I am trying to find an A&P to help me finish my annual CI. I had a friend lined up but he decided to retire, leaving a bunch of us to scramble to find help. My regular A&P is in Georgia until the end of July and a suggested replacement has been swamped with jet work. So if anyone knows anyone I can call, please let me know.

I hope to see you at our monthly meeting.

Phil Kriley

EAA Chapter 857 president



# Pittsburgh-Butler Region Experimental Aircraft Association—Chapter 857 Minutes of June 21, 2022 Regular Chapter Meeting

**Opening:** President Phil Kriley called the meeting to order at 07:00 P.M. and led the members in the Pledge of Allegiance.

**Meeting attendees:** 11 members were present. Bob Weir, Frank Szczerba, Chuck Warren and Josselyn Slagle were viewing from live stream on Google Meet. 2 guests were present. Quorum was made.

**Previous Meeting Minutes:** The minutes of the prior meeting are in the newsletter. Gary Marsico made the motion to accept. Bob Tedesco seconded.

**Treasurer's Report:** Some money certainly exchanged hands this month with our fly in event. We received \$5 from Amazon smile as being a favorite charity chosen by a purchaser. Marsha Hood made the motion to accept and Kyle Riedel seconded

**Newsletter:** The newsletter has been distributed and uploaded to the chapter website.

Website: Enter <a href="https://chapters.eaa.org/eaa857">https://chapters.eaa.org/eaa857</a> in your browser to view the site.

Tech Advisor: No report

**IMC Club:** Nothing new reported

**Business:** The following items were discussed:

- Young Eagles: iPad signature system worked well during the event. 59 preregistered flyer's 6 no shows. 35 flights were completed. Food management, people/kids management, 50/50 raffle management, and plane seating for kids need improvement or uniform decision making. \$5 comes back from each of the EAA young eagle's flights completed. Then, the funds are used to pay for Air Academy.
- August 14th, 2022 is our next event: This is a fly in breakfast event.
- Air Academy: Leah Martin is set to go.
- Ray Aviation Scholarship: The (4) scholarship applicants are being evaluated.
- **Right traffic**: Acting airport manager has disseminated that right traffic is acceptable only unless a helicopter.
- **EAA Ford Tri-motor**: event is coming back, and WE WILL NEED AS MANY VOLUNTEERS AS POSSIBLE. We are consulting with the Civil Air Patrol for their assistance as well. We have found a hangar that will house the Tri-motor for the event. We have not held this event here since 2015.
- September Young Eagles event is being moved to October: This allows us to make room for the Tri-motor event. This Motion was made by Ted Merklin and seconded by Gary Marsico

Closing: The meeting was adjourned at 08:10 P.M. Gary Marsico made the motion to adjourn seconded by Dan Hood.

Respectfully submitted:
Josselyn Slagle, Secretary EAA 857



# **Visiting Chandler Field**

## By Kyle Riedel

My wife, Maija, and I have returned to our normal schedule of two trips per year to my ancestral home in rural Minnesota to see my parents and extended family. This was my first post-pandemic trip back to Minnesota, so we packed our week-long vacation full of as many family, friends, and notable places to visit as we could endure. Chandler Field located in Alexandria, Minnesota was included in one of our stops.

Chandler Field is significant place for me to visit for multiple reasons. Foremost, Chandler Field is the location that both my father and I first learned to fly. While we took lessons about three decades apart, we both share memories of that location especially now that he is in his late 80s.

Secondly, the family Piper Cub received all its maintenance at the Alexandria-based airport. For nearly forty years, the Cub only flew on an asphalt surface for its annual inspection visit to Chandler Field. The remainder of the year it flew on a 700' turf strip in our back yard.

Finally, Chandler Field was the previous home to Bellanca Aircraft Company founded by Giuseppe Bellanca. Both of my parents worked for Bellanca, albeit for a short time, prior to their marriage in 1960. As the last remnants of Bellanca were sold and moved from Minnesota to Oklahoma in January 2022, there were only two signs remaining on Chandler Field as proof of Bellanca Aircraft Company's previous home. I've attached two links as an update on Bellanca's move to Oklahoma and some of their "high flying" days as they produced more than 1,700 aircraft from the Minnesota-based plant. Hope you enjoy reading about Bellanca's history.

### Bellanca to move out of Alexandria -

Alexandria Echo Press | News, weather and sports from Alexandria, Minnesota

## When Bellanca was flying high in Alex

(srperspective.com)













# Power Out! Scotty, Beam Me Down!

## By Danny Michaels

I confess, my panel is a bit over the top. Between iPads, touchscreens, and all the latest in Garmin buttonology, my 1977 Cessna 182Q feels more like the cockpit of the USS Enterprise than a high-performance Cessna. She is seemingly able to detect and correct any celestial aberration, and she can lull one into an overconfident stupor. Flashing lights, dings, and dongs are constantly poised for increased situational awareness. Yet despite all her warnings, starship N667AR—Romeo for short—lost her brain during flight, coughing out one instrument at a time until the cockpit went dark. Unfortunately, Scotty couldn't beam me to the ground. No transponder, no radios, no lights, no flaps, and no informative high-resolution displays. With a new-to-me airframe and aircraft, and a still wet Private Pilot certificate, the outage was a pucker-up moment.



**N667AR** 





**Panel View** 

## **AVIATE, NAVIGATE, COMMUNICATE**

Fortunately, powered by the same technology that sparked our World War I fleet, Romeo's dual mags and bigbore O-470-U Continental hummed along as if nothing went wrong. It turns out that Romeo doesn't need bells and whistles to do her thing. She can drink dinosaurs without any help from Garmin, as can most GA aircraft. This gave me time to aviate, navigate, and communicate. A few deep breaths and I was already reviewing emergency checklists while navigating to the nearest safe landing at KBVI, my home base at the time.

Checklists are designed to promote the best-case scenario, with staying alive as a top priority. "Power failure" isn't even in Romeo's POH because she prefers diagnosing warning signs, such as over-voltage or power discharge, with the hope that one will never run her dead in the first place. In other words, had I been more attentive to the digital ammeter and a few other things in her checklists, this incident could have been avoided. More on this later. Let's get her on the ground and then we can rewind for some backseat analysis.

After toggling the alternator and battery, and pulling non-essential breakers, it became clear that I couldn't coax any more electrical juice out of Romeo. I grabbed my backup handheld radio, plugged in my headset, and I couldn't get a strong enough signal to reach the tower. I considered making a dash for PJC or BTP but I chose the class Delta to get



some assistance with separation. BVI was already in sight, the power plant plume making pilotage easy, and I hoped closer range would wake up my handheld.

My plan was to enter an upwind for runway 28 at pattern elevation and then make a wide arc into a 45° downwind, hoping that multiple passes of the tower (to the north, west, and east) would get the attention of the controllers. Not seeing any signals by the touchdown zone, I circled south to reenter the downwind again, passing right in front of the tower. Still no light signals. I tried the radio again without the headset and the roar of the engine made it impossible to hear, and it was obvious that they weren't hearing me. In the tower's defense, it was one of those hazy days that make identifying aircraft difficult, particularly when said aircraft has no lights. After a glance at traffic on my iPad—thanks to my battery powered Sentry—I decided to set up for landing without input from the tower, taking advantage of a lull between traffic.



ForeFlight tracking into BVI

Flying a traffic pattern without flaps, I expected a nose-high attitude and shallow angle of descent, as compared to flaps extended. Losing altitude is more difficult without the benefit of increased drag, which means I also needed less



power. To make things easier, I flew a slightly longer downwind and my tours in the pattern helped hone my skills at power management. I put on my best Top Gun and prepared to buzz the BVI tower toward runway 28.

I landed without incident, exiting on the last possible taxiway toward the ramp. I was greeted with flashing white light-gun signals (i.e., "return to start"). "Too little, too late," I thought. I pulled out my phone, called the tower, and explained what happened. I could practically feel the manager turn to his controllers to question why they didn't see me. Although the controller said, "I did the right thing," I filed a NASA report anyway.

## **WARNING SIGNS**

Here's the rub: Romeo had been screaming warnings for days, all of which I missed or misinterpreted. I lower my head in shame and share these hints with the hope that they help someone else in the future.



**Auto Pilot Warning Screen** 



Several weeks before the full outage I got an error—"autopilot fault detected"—on the G3X, followed by a clunk and announcement that the autopilot was disengaged. It was early in my flight, so I hand-flew back to base to assess the problem. I tucked Romeo in and plugged in my trickle-charger, as is my habit after every flight. Before leaving, I fired up the avionics and to my surprise everything worked. The charger must have provided enough nectar to please the battery temporarily. This alone should have pointed me to the alternator.

After some back and forth with an avionics shop, I decided to give it another try. I stayed closer to home this time and the autopilot performed as expected. I performed the same test again the following day, again flying short routes. "Problem solved," I thought, so I prepared for a cross country later that week. Not surprisingly, the longer journey led to Romeo's full battery drain. As each instrument blinked out, starting with the autopilot, then GPS, transponder, and so forth, I became fixated on the errors continually displayed on the G3X, none of which said, "Hey idiot, look at the ammeter!"

Keep in mind that I'm a Chief Technology officer (mostly software development), so I falsely assumed that something was wreaking havoc across the hardware and software system instead of following the simple advice of my father, a journeyman electrician: "Check the power first," he would say. "Unplug to inspect and plug-in for play, then recheck, recheck, recheck!" In other words, I never checked the simplest requirement of a glass cockpit—power. It had not occurred to me that the problem had nothing to do with the autopilot or the G3X software and everything to do with the alternator and battery, even though the evidence was before my eyes on the ammeter and voltmeter the entire time.

I don't have much of a defense here, so I shamelessly admit my failure. At the same time, I also discovered a software omission that contributed to my blindness. The G3X was not properly configured when installed, so there were no tolerances set for the ammeter and voltmeter. Thus, unlike most other parts of the system, it would not provide any dings, dongs, or text warnings during a power event. It's easy to fall into the habit of only looking for red, yellow, or green instead of inspecting the actual numbers. Seeing only green during my scans, I never looked close enough to notice the immanent discharge.

I also admit that I didn't rely on the power gauges much in flight school, probably because most of them shook like wet Polaroid pictures. Although unintentional—and I'm certain they taught it correctly—I developed a bad habit of ignoring those shaky steam gauges, save a glance during takeoff. I have since been cured of that habit.

### LESSONS LEARNED

- 1. Don't fixate! The autopilot error was the symptom, not the cause. The GFC 500 servos require 11+ volts, so they were the first to go. Any autopilot failures in the future will necessitate an immediate glance at the ammeter and voltmeter.
- 2. Continually update your scan and checklists. I modified my scan to include power at all phases of flight. I look closely at the numbers now, regardless of the color-coded DEFCON levels.



- 3. Know your breakers. I have since created an ordered list of breakers to pull to reduce strain on the battery in the event of an alternator failure.
- 4. Install a backup antenna. I installed an external backup antenna to extend the range of my handheld. The same radio that couldn't reach the BVI tower from 500 ft worked flawlessly on a recent cross country to Cincinnati. Worth every penny.
- 5. Use a backup headset for your backup radio if you operate in stereo mode. Most handheld radios that have headset adapters must be operated in "mono" mode (not stereo). The setting is under the battery in my Bose A20s and requires a small tool to flip the switch, something that should be done on the ground. I also pack a PTT extension cord so that I can Velcro the PTT to my yoke instead of holding the handheld. Everything fits neatly in the backup A20 case.
- 6. Connect your phone via Bluetooth, if possible. My phone was already connected to my headset, so I could have called the tower any time during that crisis. Hindsight is 20/20.
- 7. Backup ADSB. My iPad and Sentry helped identify traffic beyond what I could see out the window (e.g., incoming jets). I have Bluetooth ADSB on my transponder, but having the Sentry was a Godsend when the transponder winked out.
- 8. Stay sharp with dead reckoning and pilotage.
- 9. Update PFD/MFD configuration, if necessary. If you have a glass cockpit, make sure the tolerances are set correctly for all flight controls, including power, so that you get proper warnings.
- 10. Carry a spotlight. This incident inspired a battery powered, high intensity spotlight, including a pulse button. Now I can provide light-gun signals to the tower, if necessary, to get their attention. It also doubles as a backup landing light at night.
- 11. Study your flight data logs. I'm a member of Savvy Aviation (its free at savvyaviation.com). If you have an engine monitor, upload every flight for easy analysis. Monitor power, EGT, CHT, and dozens of other variables, all from an iPad. I usually upload from the cockpit so that I don't forget. Had I been savvier (pun intended), I would have seen that my alternator failed on September 26, leading to my outage on October 18th (that's three weeks of warnings missed).

In the grand scheme of things, this was not an emergency, but it got my attention. Aviation is not the place I want to learn everything by correcting mistakes. If it was up to me, I would get it right the first time, every time. In this case my mistakes helped inform the way I care for and fly my aircraft, and for that I'm grateful.



## EAA 857 - Chapter Meetings and Events for 2022

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 18
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February 15
March 15
April 19
May 17
June 21
July 19
August 16
September 20
October 18
November 15

IMC Club -3rd Wednesdays, May 18International Young Eagles Day -Saturday,June 11EAA 857 Fly-In and YE -Sunday,August 14Food Tri-MotorTh-SuSeptember 8-11EAA 857 Fly-In and YE -Sunday ,October TBD

## **2022 National Events**

Sun 'n Fun - April 5 - 10
Sentimental Journey - June 21 - 25
Air Venture Oshkosh 2022 - July 25 - 31

## **EAA 857 Chapter Officers for 2022**

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

President Phil Kriley
Vice President Kyle Riedel
Treasurer Frank Szczerba
Secretary Josselyn Slagle

Board Members Ted Merklin 2022-2024

Mark Beighey 2022-2023

Dan Hood 2022

Website / Newsletter Ted Merklin