
Pittsburgh-Butler Region Experimental Aircraft Association - Chapter 857

EAA 857 NEWSLETTER



AIRVENTURE AEROBATICS 2021!

In order to encourage social distancing during the airshow, the EAA has plans to simultaneously have certain acts display at both the north and south ends of Wittman Field. Those acts would swap locations on subsequent performance days.

PRESIDENTS MESSAGE

EAA 857 Members,

We will be conducting the February meeting at KBTP in the conference room, unless the weather projected for early this week impacts evening travel. We will also conduct this via a Google Meet live stream for those of you who may not wish to attend in person at the airport I will send you the meeting link to use prior to the meeting. Please plan to mask and distance if you attend the meeting in person on Tuesday due to Covid-19 mitigations.



Dates have been posted for our traditional airshows, of course including AirVenture 2021, July 26 - August 1. There are dates listed now also for Sun n Fun in April, Sentimental Journey in June and the Sport Aviation Expo in November. Its snowing right now but we look forward to spring and summer to see these shows, hold our local events, and enjoy all the unique and classic aircraft presentations they afford. 2020 was an absolute bust of a year for my aviation photography. Please as conditions permit, get out and enjoy your brand of aviation hobby in 2021.

Last month I sent out a copy of our membership roster seeking your feedback on the listed personal information. If there are corrections necessary, particularly for contact information, but also for pilot ratings, projects in work, aircraft owned etc. please let me know by return email. Thank you!

Finally, chapter dues **became due and payable on January 1, 2021**. Please bring your dues to the meeting or mail them to Frank Szczerba at his address listed in our roster.

Ted Merklin,

President, EAA Chapter 857



MINUTES OF JANUARY 19, 2021 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: 6 members were present and 5 were viewing a live stream on Google Meet. This is a quorum for our business.

Previous Meeting Minutes: Minutes were reviewed, Phil Kriley moved to approve and Dan Hood seconded. Members approved the minutes of the November 17, 2020 meeting.

Treasurer's Report: Treasury were reviewed, Dan Hood moved to approve and Marsha Hood seconded. Members approved the bank balance report.

Newsletter: The newsletter was distributed January 17, 2021 and was uploaded also to the chapter website.

Website: Enter <https://chapters.eaa.org/ea857> in your browser to view the site.

Tech Advisor: Bob Santolla referred to the need to keep up with Airworthiness directives for production aircraft such as the cantilever wings on certain Cessnas. Be aware of FAA requirements and possible alternative procedures, as well as your opportunity to comment in the period 90 days after NPRM publication.

Young Eagles: No Report

Air Academy: Candidate Zach Jordan is reserved 2021 Basic camp. Phil Kriley Requested contact information for Zach.

Business:

- **Membership status:** We have 36 paid members. Ted Willke rejoined. Larry Schaefer was awarded an Honorary Membership by the Board of Directors per our bylaws. Request members to update / correct information in Roster recently sent out.
- **Chapter room:** Dan Hood will be scratch building the cart(s) for chairs and tables as a contribution to the chapter.
- **Service Pins:** Service pins for 2020: Schubert, Neuman, Santolla, Potts
- **Chapter Leadership Training:** 6 evening online classes will be conducted by EAA, one each week beginning 2/11/2021. Ted Merklin had attended the fall sessions.
- **2021 Dues:** Chapter dues were due on 1/1/2021.
- **Chapter Renewal:** Our EAA charter renewal was submitted in December. Registered with underwriter for Chapter meeting event insurance.
- **New Chapter Banner:** This will be ordered, \$33. We are also pursuing signage for the chapter storeroom door, a sample proposal was passed around. Suggestion was to add website link. Ike Kelly wants to review and need to find a sign shop to print it.
- **Home Builders Week:** Scheduled for January 26-30, multiple webinars, multiple subject matter related to experimental amateur built aircraft.
- **Cancelled:** Super Chili Bowl Cook Off
- **FAA Proposal:** Electronic Monitoring of UAV proposed by the FAA; enabling more commercial unmanned activity in the airspace.
- **Sport Aviation Showcase:** to be held in DeLand, Florida November 11-13, 2021.
- **Chapter Facebook Group Page:** Bob Santolla made a motion that the chapter delete our Facebook Group page due to concerns with the social media platform's actions limiting some exercise of free speech. This was seconded and discussed; the page as we utilize it is for sharing of aviation related content, we have not used it for recruitment for any of our program activities. Ted Merklin made a motion to table a decision until February's meeting to query chapter members who were not present at tonight's meeting for their opinions. This motion was seconded by Phil Kriley and a vote to table was approved.
- **Adjournment:** A motion to adjourn at 20:40 was made by Frank Szczerba, and seconded by Rick Schubert.
- **Program:** 50/50 was followed by a video: Super Cub in Alaska

Respectfully submitted: Theodore Merklin, President EAA 857

RUDDER / BRAKE PEDAL EXTENSIONS **(or Nothing Simple is Ever Easy)**

by Phil Kriley

As some of you know, I am building a Cozy Mk IV, which is a 4-seat version of Burt Rutan's Long EZ. The Long EZ and Cozy are canard/pusher airplanes, with the elevator in front and the engine in the rear. I've been working on the plane for over 10 years now. It is 90% done and has about 90% to go! So one day my wife Robin and I drove down to Falls of Rough, Kentucky to attend a fly-in of canard airplanes, hoping to get some inspiration and motivation.

As we walked around looking at the beautiful planes, we came across one that I had seen featured in a DVD titled "In Pursuit of Flight: A Canard Special." The plane has a distinctive look to it, featuring three cats on the fuselage sides and named "Cat's Meow." We struck up a conversation with the builder and his wife and that turned into a demo flight for my wife! After landing, she was grinning ear to ear and exclaimed "That plane really goes!" This particular plane has a 200 hp fuel-injected Lycoming with a 3-blade constant speed prop.



So after some more conversation the builder told us he wanted to sell the plane. Robin and I looked at each other and told him we would consider it and get back to him in the spring (it was fall). So, obviously, we made an offer, he accepted and delivered the plane to us at KPJC!



I engaged a Cozy expert to give me some transition training because the plane is a lot faster than anything I had ever flown before. It also has a joystick for the pilot's left hand, so that took a little getting used to. I got 'signed off' to fly the plane, but I was not comfortable in it because I could barely reach the IP and the rudder pedals were tip-toe only even with me scrunched down in the seat.

Even with the rudder pedal footpegs adjusted as far aft as possible, and with thicker seat cushions I still felt out of position.

The original builder of this plane is a large man, and I am not, to say the least. So I needed to find a way to reach those pedals more easily. The solution I came up with was to make rudder pedal extensions.

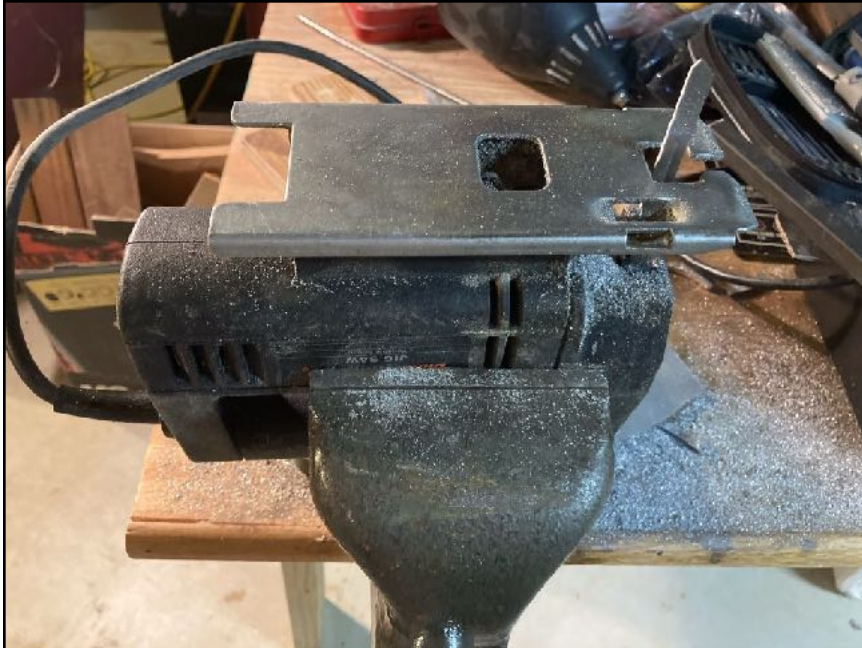


I bought a piece of 5/8" 2130 square tubing from AS&S with .065" thick walls that fit perfectly over the existing rudder pedals. This is the design I came up with:



The extensions have worked very well for me over the past 5 years, so I decided to make a set for the passenger side. It was difficult for my son to fly the plane from the right seat and impossible for my wife to hold the brakes for me. So I started this 'simple' project a few weeks ago. Hence the subtitle "Nothing Simple is Ever Easy"...

I thought I had a piece of the 5/8" square tubing in the scrap pile, but of course it was the wrong size. So first order to Aircraft Spruce and Specialty (AS&S) was for a foot of the tubing. Then came the task of cutting it to size and shape. But darned if I could remember what I used to cut that steel. Man, that stuff is HARD! I used a bi-metal hacksaw blade to cut the pieces to length, but the other cuts were going to be a lot tougher, especially the 3" cut to open up half of the tubing. I tried to find a correct band saw blade, but none were to be found locally. Several trips to the local hardware stores and I finally had a selection of sawblades to try. So I tried several different jig saw blades in my jig saw that was mounted in my vise:



The best blade was a DeWalt bi-metal blade mounted with the teeth facing rearward, as you can see in the photo. With some elbow grease and cutting oil I got the cuts made. A second cut had to be made that the jigsaw could not make, so I used a diamond coated cutoff wheel in my Dremel:



This worked well. Next I drilled the 1/4" holes for mounting the extensions to the rudder pedals. Then I started looking for the proper drill bit and tap for the AN4 bolts that mount the foot pegs to the extension. Of course I could not find what I needed at home or in the barn or in the hangar...but Ace hardware had what I needed. Now I KNOW I have 3 or 4 tap handles laying around...do you think I could find one? So back to ACE I went!



Finally I was able to complete tapping the holes in the extensions! For extra strength, the holes are tapped all the way through both sides of the square tubing so that the bolt holding the foot pegs engages both sides of the tubing:



After some filing and grinding to remove any rough edges I cleaned the parts with an abrasive brush in a drill:



Then I painted the parts with zinc chromate. Next it was time to mount the extensions in the plane. But, of course, I did not have enough bolts in my bin! So another order from AS&S and another trip to ACE got me everything I would need. Here is the finished installation:

As I was working on this project, I was humming the tune “Short People” by Randy Newman! Ah well, now for a break in the weather to go flying!



From: [FAASafety.gov](https://www.faa.gov/safety)

Date: Fri, Jan 29, 2021, 02:18

Subject: "You Could Hear an Autopilot Announcing its Intention to Land"

FAA Safety Team | Safer Skies Through Education

You Could Hear an Autopilot Announcing its Intention to Land

Notice Number: NOTC1667

Emergency Autoland Overview

Three aircraft have been certified with Emergency Autoland (EAL) systems in 2020: the Piper M600, the Daher TBM 940, and the Cirrus Vision Jet SF50.

EAL systems can perform an emergency landing in the event of suspected pilot incapacitation. When these systems are activated, the autopilot will begin to announce its intentions on air traffic frequencies. Here's what other pilots in the area should know about EAL systems.

EAL can be activated in three ways:

1. EAL senses erratic flying, stabilizes the aircraft, and checks for pilot responsiveness; if no input, EAL activates.
2. Emergency Descent Mode (EDM) activates. After descending, EAL checks for pilot responsiveness; if no input, EAL activates.
3. EAL can be manually activated by a pilot in distress or a passenger.

EAL will squawk 7700 and broadcast a Mayday advisory on the aircraft's last pilot-selected frequency and on Guard (121.5) as follows:

"Mayday, Mayday, Mayday, November One Two Three Four (N1234), Emergency Autoland activated, standby for more information."

After the initial broadcast, there will be a 25-second pause for Air Traffic Control (ATC) to move conflicting traffic. Twenty-five seconds after activation, EAL broadcasts the following:

"N1234, pilot incapacitation, XX miles southwest of KABC, landing KXYZ airport. Emergency Autoland in XX minutes on Runway 00."

The aircraft then begins maneuvering to the selected landing airport.

Subsequent broadcasts will be on Guard. After initial activation, it will immediately broadcast on Guard if EAL changes destination due to weather or other factors. As necessary, the aircraft descends in the hold at the final approach fix for landing at the emergency airport.

EAL will broadcast on the appropriate ATC frequency or Common Traffic Advisory Frequency (CTAF) within 12 miles of the landing airport. Subsequent broadcasts at intervals repeat information and update time to landing. After landing, EAL broadcasts at 90-second intervals on Tower/CTAF and 5 minutes on Guard as follows:



“Disabled aircraft on Runway 00 at KXYZ airport.”

Once activated, the EAL system will make verbal announcements to passengers in the cockpit on upcoming maneuvers, and indicate the route of flight and ensuing maneuvers via a video map display. A push-to-talk button is available for passenger communications to ATC.

EAL will avoid: prohibited areas; known obstacles and terrain; and significant weather.

EAL does NOT:

- Check Notices to Airmen (NOTAMs) (e.g., closed or shortened runways).
- Avoid Military Operations Area (MOA), Special Use Airspace (SUA), Restricted Areas, or Temporary Flight Restrictions (TFR).
- Turn on aircraft lights (lights that are already on when EAL activates will stay on).
- See and avoid other traffic.
 - Traffic Alert and Collision Avoidance System (TCAS) is not linked to EAL.
- EAL Operational Considerations:
- Only selects airports with a published Global Positioning System (GPS) or Area Navigation (RNAV) Approach
- May cross international boundaries
- Does not exit the runway
- May land opposite direction to current traffic
- Does not receive braking action reports
- Does not know about personnel and equipment on the runways
- Will not alter route of flight per ATC instructions
- Must have a terrain database loaded (may be out of date)

The EAL system selects a suitable landing airfield based on several factors: weather, wind, runway length, and towered/non-towered airport status. EAL selects towered airports over non-towered airports where possible, and uses runway requirements that depend on the aircraft type. If the system loses the GPS signal, the airplane continues straight flight without attempting to land until GPS coverage resumes.

Earn your WINGS to get a chance to win a cash prize. Go to www.mywingsinitiative.org for more info. Join us on Facebook: <https://www.facebook.com/groups/GASafety/>

The above FAA notification was shared with us by Frank Szczerba



EAA 857 - Chapter Meetings and Events for 2021

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 19 February 16 March 16 April 20 May 18 June 15 July 20 August 17 September 21 October 19 November 16
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IMC Club -	3rd Wednesdays, Cancelled until further notice.	
EAA 857 Chili Cook Off -	Cancelled	
International Young Eagles Day -	Saturday,	June 12
EAA 857 Fly-In and YE -	Sunday,	August 15
EAA 857 Fly-In and YE -	Saturday,	September 12

2020 National Events

Sun 'n Fun -	April 13-18
Sentimental Journey -	June 22 - 26
AirVenture Oshkosh 2020 -	July 26 - August 1

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	Open	
Board Members	Open	
	Dan Hood	2021-2022
	Mark Beighey	2021-2023
Newsletter	Ted Merklin	
Website	Ted Merklin	