

The FlyPaper

March 2018

The Official Newsletter for EAA Chapter 477, Charleston, South Carolina



Words From the President

Thank you to all for your patience with my absence as of late. Quick up date, I was recently offered a pilot position with Net Jets flying the Citation CE680 Sovereign that requires a few hurdles. I recently completed a two-week company required indoc class in Columbus, Ohio that reviewed company procedures and policies. The next step is a three-week simulator training session on the Sovereign. Hopefully, when that is all completed and my initial line operating experience (IOE) is signed off, I should be on a set schedule.

I picked up one thing at Indoc training that I would like to share regarding checklist use that in my view applies to all pilots. A checklist can be used as either a do-list or a checklist. The airlines and major fractional/charter operators like my new employer all use a cockpit memory based flow set-up method and a checklist to verify. My personal preference even in my Cessna 180 is a memory flow to set up, followed by a checklist to verify that I did what I intended to do. Both systems can be fallible if you do not manage distractions and the ever-present cognitive bias based on familiarity.

I experienced this type of error chain in my 180 the other day when leaving RBW. I was running through my set-up flows holding short of runway 35 (that I intended to use) while I was listening to another aircraft using 5 in the pattern. I missed setting my desired flap setting and subsequently let myself be rushed to taxi back on 35 for takeoff, which also led to me missing the position of the flaps on the before takeoff checklist. Psychologists call this one “automaticity” or the ability to perform tasks by rote without much mental concentration.

The first strange feedback was the increased control forces to raise the tail and the second was the bit longer takeoff run and the time it took to figure out why the aircraft was feeling different during the climb out. Not a problem normally in the type aircraft we fly, as they do not generally need flaps for takeoff. However, it was a good lesson on once again for taking your time and do not let distractions interrupt your checklist use and flows.

Something to consider especially during Young Eagles Fights, how to manage potential distractions prior to leaving the ground, starts with a good passenger briefing. The August 16, 1987 North West airlines flight 255 accident in Detroit (missed setting the flaps correctly) is a good case in point.

I look forward to seeing you all on March 10, for the planned Young Eagles Flight, chapter meeting, and the navigation challenge that Roger is coordinating.

Fly Safe,



Bill Grimes
President EAA 477



Upcoming Events

EAA477 Chapter meeting

February 10th, Young Eagles at 9:00
with pilot briefing at 8:30. Navigation
challenge briefing at 10:00 with planes
in the air by 11:00. Lunch will be at
Duke's since Bruce will not be there to
cook the BBQ

South Carolina Breakfast Club:

March 4th Mt. Pleasant , SC
KLRO

March 18th Columbia, SC

KCAE

February Chapter Meeting Report

Glen Phelps

I recorded the minutes in Diana's absence. Hope you will forgive the different "format".

The meeting was called to order shortly after 11:00 AM by Roger Medlin, President Emeritus. Bill Grimes was also out of town, so Roger filled in.

Ron Malec filled us in on some of the Spring airshow events that are upcoming. After breaking my pencil trying to get the notes, he promised to provide me with details for this newsletter. You will find that information later in this publication.

With that we go on to the one business item that we needed to get out of the way before the topic of the meeting: the election of a Vice President to replace Mike Brown who needed to step down for circumstances in a mailing sent to the membership a week before the meeting.

The Executive Committee brought the name of Jeff Grigg forward for this position. There were no additional nominations from the floor. Since the nomination came from the Executive Committee, no second was need to proceed to a vote. The vote was unanimous, so Jeff will complete Mike's term as our Vice President.

In additional to that, Roger Medlin will assume the appointed position of Young Eagle Coordinator, the position previously held by Jeff.

After the presentation by Glen Phelps, (which is presented below), we adjourned to the hanger to enjoy Bruce Huffines' world famous BBQ. (You just can't find a better deal!)

Meeting Presentation

Glen Phelps

This is a summary of the topic presented at the February meeting. While I will attempt to get most of the information into this writing, a.s always, the best it to be in attendance.

The story is an actual incident and was recorded when the incident pilot wrote a letter to the "The Canard Pusher", a publication that was used for builders of the Rutan canard aircraft to share information, experience and ask questions. That quarterly publication was #53 dated October 1987

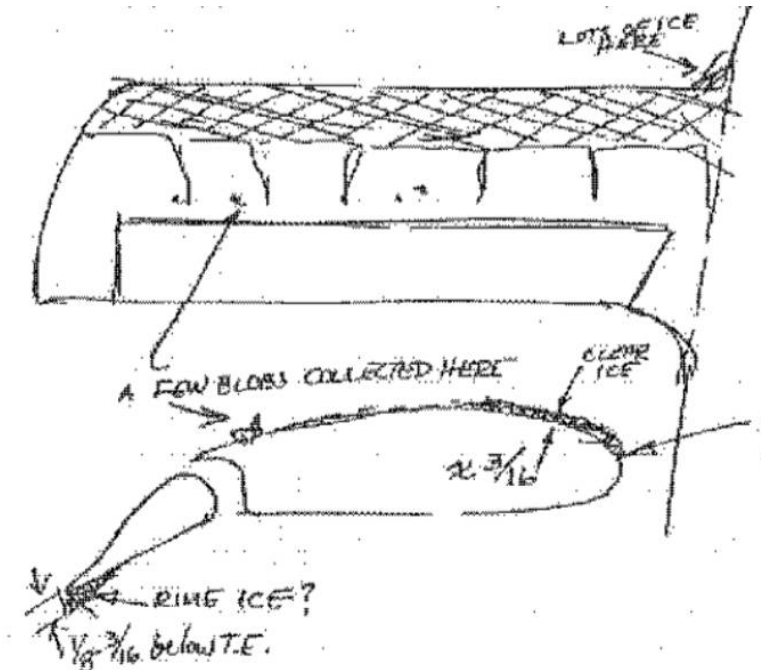
The incident pilot had logged over 1100 hours in his Long-Ez aircraft and had obviously installed appropriate equipment to make the flight he was about to encounter. The flight left a southern gulf coast airport IFR, in late May of 1987. He emerged cloud shortly before getting to 14,000 feet, short of his requested 16,000 altitude. Now between layers, he requested to hold at this altitude, since he had picked up ice in the climb. ATC informed him that the forecast he had been given had changed dramatically and to avoid some "really big guys" he needed to deviate 60nm north to avoid that weather. He had no choice but to take this vector.

He stated that at the normal cruise engine rpm, he would expect to see 140 knot with a 1/3 inch reflected elevator position. What he was actually experiencing was 120 knots with 1/4 to 3/8 inch downward trailing edge, In other words, he was experiencing both additional weight on the canard and loss of airfoil. From the sketch below, I would assume that he had the Roncz canard and not the earlier GU (Glasgow University) canard. Nevertheless, this is a very serious condition for any airplane, but for the canard aircraft, is critical.

As discussed in the meeting, the canard is a high performance airfoil, that provide lift all of the time. Small changes to the airfoil can be critical. The two excerpt below are taken from persons with some experience.

“The old GU canard is a design from Glasgow University, it is a good one as long as it remains laminar. Rain and poorly placed paint strips can cause it to loose lift. I have the old GU canard and in the rain I need to adjust full up trim and hold the stick back to maintain level flight. I have heard of someone who painted a strip, 1/8" wide along the leading edge of the GU canard and was unable to rotate the plane to lift off until he sanded the stripe.”

Below is the sketch of the ice coverage of the wing and canard surfaces:



Our pilot is in very serious circumstances. But things are going to get a lot worse. At this point, I will duplicate the text he wrote and how things progressed.

“After a few minutes I wa again in cloud and it became increasingly difficult to hear radio transmissions, static was all that came through the headset.

“I started receiving mall electrical shocks from the microphone to my lips. I became aware of the transparent blue glow that was on the nose and canard. I ay blue, but somehow it seemed blue with a pick tinge. The color was similar to the bright blue from a gas welders flame. This halo was about one chord width above the canard and seemed to 'move', it I very difficult to describe in words. I was now getting shocked through the speed brake handle and fro the rudder pedals to my ankles (my feet were in the relaxed position forward of the pedals). The B&D tachometer was bouncing erratically from 50 RPM to full scale and both Nav CDI displays were swinging from stop to stop. The electric engine instruments were also useless, I didn't notice what the wet compass was doing. Here I was: IFR conditions, icing, no communication or navigation, thunderstorms and weird light. So far the ride was sooth with no rain or hail in the cloud, the cloud was not a dark,, heavy one. The blue (pink) glow increased in intensity and its movement was more rapid. I am not sure, but I believe that the blue glow was now inside the cockpit between my face and the instrument panel. But I could still easily read the gauges: it was right out of the Twilight Zone.

“I saw a bright flash way ahead of me that seemed to go from left to right that really lit up the cloud I was in. I assumed that it was cloud to cloud lightning and that I was definitely in deep grease! The com was still all static and calls to center were unanswered or perhaps unheard. I was so scared that I was sure that this would be the way it would all end and Kay (my wife) would be really pissed. I smelled a thick sweet odor, got one good shock from the microphone and then there was a tremendous flash of light and an incredibly loud 'crack', I felt it in my bones and chest as opposed to hearing it.

“I had been looking out at the right wing trying to figure out why the blue halo was not on the wings, only the canard when the flash occurred. I was temporarily blinded so that I removed my hand from the stick hoping I wouldn't enter a spiral dive”.

I am going to break from the narrative at this point to insert that what he needed as mandatory equipment at this point would be:

**One large adult diaper and
Two air-wicks.**

Returning to the narrative,

“When I could see again, (about 10 to 15 seconds), to my amazement 1) I was still alive and 2) the plane was still level at 14,000 feet on my last assigned heading of 060. The blue halo was gone and I heard a transmission on the com from a Delta jet,. I called center to see if my radio was blown and they immediately answered my call. Apparently they had been trying to reach me to give me a new vector and immediately turned me to 330. The plane was again between layers and the visibility was good. I could even see patches of ground below. Everything appeared to be working, but the plane still had a lot of ice on it and I didn't think I was in any mental state to fly an approach. The airspeed was less than 50 knots, so I know my pitot was iced over.”

The writer continues his narrative, where he sees things improving, the ice melting and the flight characteristics returning to “normal”. When he reached his destination, he discovered dark spots on the wings and canard where no finish was left, only the glass skin remained.

Young Eagles Corner

Roger Medlin

Young Eagles Coordinator

Looks like spring is about to spring upon us, with warmer temperature and lots of good flying weather it's time to launch our Young Eagles flying program. The EAA 477 officers have changed hands with yours truly having stepped down from the presidency and has put on another hat, Young Eagle Coordinator. As the new YE's coordinator I am excited about getting back to fly young eagles. Our last flights were way back in October of 2017. We did have YE flight scheduled for February, 2018 but the weather just didn't co-operate with our schedule. So let's give it another try. March 10th starting at 08:30 we launch our spring YE's flights. This will be a busy Saturday in that our seniors will be launching our Navigation Challenge, so we will be limited in how many flights we can make. Flights will begin 08:30 sharp and end by 10:00, pilot briefing at 08:00. Also any YE's who want to participate in the Navigation challenge are welcome to. Participants who want to participate will be on a first come basis. Availability of planes and pilots will also be a factor. Finally, we are in need of more planes and pilots to help get the program up and running again, so if you can lend a hand please let me know.



Upcoming Aviation Events

Ron Malec

(Editor's note: due to formatting problems, this information is shown on the last page of the newsletter)

Treasurer's Report

Glen Phelps

A total of \$105.00 was deposited to our account that represented dues from three members and monies from the “Tip Jar” at the BBQ lunch. There were no “petty cash” disbursements.

The financial summary is as follows:

Beginning balance = \$1,975.35
Ending balance = \$2,081.35
Increase or (decrease) = \$105.00

Petty Cash

Beginning balance = \$79.06
Ending balance = \$79.06

As history goes, we are not doing too bad with collecting dues from our members at this time. But, you that have not paid, are reminded to please get your 2018 dues to me as soon as possible. Still cheap at \$25/year!

We have the mailbox at the Low Country Regional airport, but that is not checked very often. For the purpose of getting your dues up to date, you can mail them to my local mailbox, Glen Phelps 4348 Cloudmont Dr Hollywood, SC 29449 Make checks payable to EAA 477. I will see that you get a receipt either email, mailed, or at the next meeting. Just let me know how you would like it to be handled.

And of course, you can pay by check or cash at the next meeting.

Other Items of Interest

Glen Phelps

While reading some “on line” aviation news, I happened to run across an article on how the Ceriss aircraft are assembled. There is a link below for those that wish to access, showing highlights of this process. What struck me was the way each manager for different segments of that process talked about how they had to deal with this work and get it into existing facilities. Way back when, when I courted getting an industrial engineering minor to my mechanical engineering degree, I learned much of the detail these guys are talking about. These guys are good! Take a look by clicking on the link below:

<https://www.youtube.com/watch?v=-PdTNmPoY94>

Dates	Name	Location	Contact for More Info
2018-04-21	Grass strip Foundation's 9th Annual Fly In	9GA2 Berg Park Aerodrome (Private) Midway, GA	Steve Berg stevebee@coastalnow.net (m) 912-572-8688
2018-04-28	Charleston Air Expo	CHS JB Charleston, SC	Laura Abell 843-963-3809
2018-04-28 2018-04-29	Wings Over Myrtle Beach	MYR Myrtle Beach, SC	John Cowman 678-655-5268
2018-05-04 2018-05-06	MCAS Cherry Point Air Show	NKT MCAS Cherry Point, NC	Breeanna Zamora 252-466-5311
05/12/18	14 th Annual Wings & Wheels Air Festival	FWD Fairfield County Airport, Winnsboro, SC	
2018-05-19	EAA 1167 Spring Fly-in	HWY Conway, SC	Jesse Hyman jphyman@sc.rr.com or ea1167@gmail.com
2018-05-19 2018-05-20	Anderson Regional Air Show	AND Anderson, SC	Hugh Oldham hugh@proairshow.com (m) 864-226-3489
2018-06-09	NCAMHOF Fly-in	HBI Asheboro, NC	Jerry Jeffers p3uy@triad.rr.com (m) 336-953-4717
2018-07-07	EAA 611 Cracker Fly-in	GVL Gainesville, GA	ea611staff@gmail.com