

The FlyPaper

April 2022

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



Words From the President

Hello everyone,

First up thank you, to my team who worked the Bamberg 99N rally, a great effort. Congratulations to 99N for the re-dedication to their wonderful little airport. My sincere thanks to 99N for inviting us to do a rally.

We are standing down and there will be no official meeting for April. Most of us will be out and about in all corners of the country catching air shows, and post pandemic catching our breath.

Liz needs help for the May 28th rally. Let her know if you can make it.

As summer approaches, weather will be a factor for us G A flyers, I try to fly early. Check our website for updates with lots of great info available plus the vmc club will start posting info as a blog in June.

I'd like to remind anyone who wants to be part of 477, we are a team, we offer something for everyone and with that said, the people who want to be part of that concept will show up and they are, and they are welcomed. "There's a reason why the rear view mirror is smaller than the windshield"

Staff will make their reports; by the way they are doing a fabulous job. I'm heading to Florida for Sun-n-Fun; again that weather thing. I think I'm going to be driving not flying.

That's it for me for this one,
Be safe out there.
Doug



Doug St Pierre
President EAA 477



Upcoming Events

EAA477 Chapter meeting

There will not be a meeting held on April 9th due to competing events.

Please see our Website: eaa477.org for more details.

South Carolina Breakfast Club:

Please use the following link to access the latest in scheduling:

<http://southcarolinabreakfastclub.com/2021-schedule>

Young Eagles Report

Liz Birch

Young Eagles Coordinator

We had a last minute small rally at Bamberg County Airport at their dedication ceremony for Tobul Field. While at the event, we flew 13 young eagles total due to the generous help of all pilots and ground volunteers.



As we move forward, we need more consistent volunteer pilots to ensure we hold successful events. Ron and Doug are amazing people, but they can't be our only young eagle pilots at every event. So, if you are a pilot, whether you rent or own, please let me know if you can help fly kids.

Our next rally will be May 28th with the Boy Scouts at the Walterboro airport. The more volunteers, both ground and pilots, that I can acquire for this rally, the more scouts we can invite to the event and fly.

As stated before, we are also in the planning stages for a public rally possibly in the Fall, so please let me know if you are interested in helping so we can compare calendars to make sure people are available to volunteer for the event. As we continue flying kids, we also plan to continue using the online registration and e-signature functions available to us to make the young eagles program as paperless as we can. If you would like to work as a volunteer at future young eagles events, please create a login for yourself at www.young eaglesday.org (this is our online registration website). As always, if you know of any individuals or groups interested in young eagle flights, please send them my way!

Liz Birch
YE Coordinator
217-706-0148
lizbirch2331@gmail.com

EAA Ray Scholarship Update

Dow Sanderson

At the March meeting, I gave a brief update on some of the things we had learned in the process of applying for the Ray Scholarship. We were aware that a candidate must be between the ages of 16-19. I did not know back in November that a prospective student must already have a Third Class Medical and will have soloed.

If we are to be successful in next year's application, we need to begin work now identifying young women and men (logically through our Young Eagles) and invest our own time and support in getting them to this stage in their flight training. There seemed to be a good bit of interest and consensus on this point. I will work on a proposal to submit to the Executive Committee, and to the full Chapter at our May 14 meeting. It is exciting to begin this process in earnest.

Kudos to all those who supported the YE Rally in Banberg last week. Great pictures, Liz. It looks like it was a successful event, even with some challenging obstacles with crosswinds etc. Who knows what seeds were planted in the imaginations of future aviators!

Best wishes,
Dow Sanderson

March Meeting Summary

Glen Phelps

We had a pretty small group show up for the meeting, but there was good discussion and information anyway.

Dow Sanderson discussed information he had gained regarding Aviation Scholarships. His report is included in this newsletter.

Then we got to the subject presentation which Doug had asked me to address: **“Where are we going with aviation fuels as 100LL is to be phased out.”**

There is a “long story” and a “short story” to this question. I chose to look at past to begin this presentation and attempt to find out why lead was ever used in the first place. It was a worthwhile endeavor and yielded a lot of information. My primary source was this website:

<https://environmentalhistory.org/people/charles-f-kettering-and-the-1921-discovery-of-tetraethyl-lead/>

Just casual reading of the links in this site will get you to go down a bunch of interesting “rabbit holes”. But worth it! Just a few highlights gained:

- There was a great concern if there was enough petroleum to support the growing demand that automobile use was requiring,
- That prompted a serious look into alternative fuels, and alcohol was considered as a renewable sustainable fuel, but nixed for several reasons, the most important being that prohibition had just started,
- Performance of vehicles of the day was severely hampered by the petroleum motor fuels due to engine “knock”,
- Tetra-ethyl lead was found to be very effective even in small quantities to greatly improve performance and to reduce or eliminate knock and almost doubled “mileage” performance,
- It also became quickly known that Tetra-ethyl lead was a toxin (later known as a neurotoxin) and caused serious illness and death, and
- Early studies found that lead dust could be found on streets in the cities and even in soil outside the cities.

You might also be surprised to know that many aviation historians felt that the performance of the allied aircraft over the axis aircraft was credited to the heavy use of lead in their fuels..... according to some persons.

Does anyone ever remember when you pulled up to the gas pumps in the early 50s, the attendant would come out to help you, check your oil and air in your tires and ask, “regular or ethyl?”. My parents always said, “Ethyl”.....

The “war” on lead came to the motor fuels early in the seventies. I first noted this when I couldn't get that “white to gray” color in my tailpipe when tuning my car engine for maximum economy. That was because that “chalky” color was lead deposits.

You also might be surprised to know that the last country that eliminated lead from their automotive fuels was Algeria in 2021!

But lead in aviation fuels is still here and it is becoming a problem as society is **demanding** that it too be eliminated.

It seems, at least to me, that AOPA might be the focal point for information regarding lead in aviation fuels. There is almost an endless source of rapidly changing information on their site: <https://aopa.org/advocacy/100-unleaded-avgas> But, I will present some highlights that I have seen over the last month:

- There are six “blenders” in North America of leaded aviation fuels,
- All aviation fuels are “trucked” to location and a few by rail car due to the nature of the fuel,
- It is said that 75% of the GA fleet can use unleaded fuel, but the 25% that remains uses 75% of the leaded aviation fuels,
- There are reports that say that 75% of the lead in our atmosphere comes from aviation use,
- Some California communities are using “lead in the atmosphere” in an effort to close or eliminate small airports, (note that Mayor Daley closed Meigs Field in 1996 illegally OVERNIGHT. Please see this article as the anniversary is now being celebrated by clicking this link: [Meigs Field](#)),
- A coalition has been formed to find a solution by 2023 that will need to be fully implemented by 2030,
- The same coalition is claiming that the FAA and EPA are going to “work together” on ensuring the replacement fuel will satisfy future use, (I find after working with the EPA in several instances, will be hard pressed to give much leeway for extended use of 100LL),
- There ARE a couple of promising alternatives as reported by GAMI,
- The major problem is to find a “one-size-fits-all” alternative, that will only require one tank/source at all of our airports.
- There are also current STCs that would cover non-aviation fuels and more that could become available.

I don't know how to “sum up” the discussion very well. This will have to involve aircraft air-frame manufactures and engine manufactures as well as the FAA. Next year's deadline of having a fuel in sight is going to be very difficult. The manufacture, blending and distribution is going to be probability the small part of the equation. Unfortunately, as individuals, there is not much we can do. You have to remember that most of our society/population would have no problem eliminating GA anyway, as it is just a “rich guys” play toy..... Of course, most of the population is ill-informed.

Aviation Safety and Upcoming Events

Ron Malec

FAAST Blast - FAA Safety Briefing News Updates

As a subscriber to the FAA Safety Team and the NASA Aviation Reporting System ‘CALLBACK’ Newsletters, I will share updates and information that I believe will be beneficial to all members.

General Information

- **Here’s another round of What Would You Have Done** (from the NASA Aviation Reporting System ‘CALLBACK’ Issue 506, March 2022 Newsletter)

In “The First Half of the Story,” you will find report excerpts describing an event or situation up to a point where a specific decision must be made, an immediate action must be taken, or a non-normal condition must be actively managed. You may then exercise your own judgment to make a decision, determine a possible course of action, or devise a plan that might best resolve the situation.

- The selected ASRS reports may not provide all the information you want, and you may not be experienced in the type of aircraft involved, but each incident should give you a chance to refine your aviation judgment and decision-making skills. In “The Rest of the Story...” you will find the actions that were taken by

reporters in response to each situation. Bear in mind that their decisions may not necessarily represent the best course of action, and there may not be a “right” answer. Our intent is to stimulate thought, training, and discussion related to the type of incidents that were reported. “The Second Half of the Story” will follow the upcoming Airshow / Fly-in Schedule.

The First Half of the Story

- **Anatomy of a Late Go-Around**

SF50 Vision Jet Pilot’s Report

- I was carrying too much speed on final and proceeded to float for what I felt like was too long. My training beat into my head, “When in doubt go around,” so...

- **An Encounter Too Close**

Flight Instructor’s Report

- I was with an instrument student. We were taking off and were departing to the north. As we began our takeoff roll, I saw that there were skydivers in the area. I was not concerned, as they do not cross the runway below 1,000 feet. I mentioned to my student that we had to keep an eye on the skydivers. My student had the throttle all the way in and was getting ready to rotate. I noticed a skydiver getting closer to the runway at a low altitude. The skydiver was on the southeast side of the runway.

- **Compounded Problems**

BE1900 Captain’s Report

- Operating at FL190, ...the cabin altitude was indicating approximate 10,000 feet... I felt a change in pressure inside the aircraft. When I crosschecked the cabin altitude, [rate of] climb was indicating 4,000 feet [per minute]. ... A minute later, the cabin altitude warning illuminated. This was followed by the aircraft memory item and checklist. I pulled the O2 knob, ...and as I pulled the mask, I placed the oxygen mask on emergency mode, but no oxygen was flowing. I placed it back on normal operation and nothing happened. I switched the microphone to the oxygen mask and advised ATC for an urgent descent to 10,000 feet. I discovered that ATC was unable to hear me at all. I looked over, and the switch for the microphone was placed in “OXYGEN MASK.”... Nothing seemed to fix the problem. The cabin altitude was indicating roughly about 20,000 to 21,000 feet, from what I recall.

- **Evaluating Credible Risk**

C525 Captain’s Report

- When checking on with Departure after a normal takeoff and climb, ATC informed us that ground personnel reported sparks exiting from our...Number 2 Engine during takeoff. We observed no abnormalities of any kind to indicate a problem (vibration, noise, engine parameter readings, power output, etc.). After a short discussion, ...

Airshow and Fly-in Schedule

- 2022 Airshows / Fly-ins

- **01-03 Apr** - Uncle John’s Fly-in, Triple Tree Aerodrome (SC00), Woodruff, SC.

[https://tta.aero/aviation-events_trashed/uncle-johns-fly-in/]

- **02-03 Apr** – Shaw AFB Thunder Over the Midlands, Shaw AFB (KSSC), Sumter, SC [Thunderbirds]

- **05-10 Apr** – Sun 'n Fun Aerospace Expo, Lakeland Linder International Airport (KLAL), Lakeland, FL [Thunderbirds]

- **09-10 Apr** – JB Charleston Air & Space Expo 2022, JB Charleston (KCHS), Charleston, SC [Blue Angels]

- To Attend, you **MUST** have a Vehicle parking pass. You will only be allowed to get a Vehicle Pass for Saturday OR Sunday, NOT both days. Attendance is FREE. See the link below – Go to the Questions tab at the middle of the page for additional information. NO Parking Pass NO Attendance unless you’re carpooling – The pass is per vehicle with no limit on number of people that can be in the vehicle. There is not going to be any off base parking. [Purchase Online Ticket for JB Charleston 2022 Air Expo \(attendstar.com\)](#)

- **30 Apr** – 0900 – 1400 – EAA 1167 Spring Fly-in & Young Eagles – Conway-Horry County Airport (KHYW), Conway, SC

- **07 May** – 1000-1500 – Wings and Wheels Air Fair, Fairfield County Airport (KFDW), Winnsboro, SC

- **19-25 Sep** – Triple Tree Aerodrome Fly-in, Triple Tree Aerodrome (SC00), Woodruff, SC.

Photos from the Dedication of Tobul Field at Bamberg County Airport (99N)
Dedicated to Joe Tobul and the entire Tobul family for all they did to grow not only Bamberg County Airport
but the city of Bamber.



The Tobul Clan



Bobby Jonte



Scott 'Scooter' Yoak



Jim 'Torc' Tobul



The Class of '45 – Jim Tobul /Scott Yoak



Jim Zaza

Until next month – Blue Skies - Stay Safe and Fly Safe

The Second Half of the Story

- **Anatomy of a Late Go-Around**

- Out of an abundance of caution (I thought), I began to execute a go-around. What I failed to realize is the eight seconds that a turbofan engine takes to spool up, so before full power was [achieved], my wheels were on the ground and I was slowing. We sped up and I saw the end of the runway coming too quickly and decided to...stop the go-around and slam on the brakes with very little runway remaining. We were nearing the end of the runway. To avoid slamming into the large runway lights, I turned onto the grass at the last minute and used the dirt to stop us completely. No damage [was done] to the airplane.... Only some new tires were needed.

An Encounter Too Close

■ I instructed my student to not rotate. At that point, the plane did lift off, so my student pushed the yoke forward to get back on the runway. We had too much momentum, so to prevent any incident, I took the controls and performed evasive maneuvers. We swerved over the grass to the northwest side of the runway and then climbed out safely. We were very low to the ground when I took evasive action; I would estimate below 50 feet. The skydiver landed within a few feet of the runway. The canopy was red or possibly an orange-red.

Compounded Problems

■ I switched again to my headset and requested, “Priority, need to descend now to 10,000 feet, pressurization problems.” As soon as I talked to ATC, I started the immediate descent memory items and checklist. While descending, I took the First Officer’s mask to [check] for oxygen flow, but no oxygen was flowing, I double checked the O2 handle. I pulled both upper and lower [handles] located on the Captain’s left hand side, but nothing [resolved] the O2 [mal]function. Since I was indicating 60 miles from my departure airport, I decided to return.... In my judgment, it was unsafe to continue the flight without O2 flow, no oxygen mask microphone, and pressurization problems. Upon reaching 10,000 feet, the cabin stabilized, and the cabin altitude indicator was no longer illuminated with a cabin altitude at about 9,000 feet. ATC gave me instructions to descend to 5,000 feet.... The cabin altitude started to jump 5,500 [FPM] up followed by a descent at 4,000 [FPM], and this continued all the way to 3,000 feet. At that moment, I was feeling uncomfortable since my ears were hurting and I knew I was not feeling 100%. At 3,000 feet, I turned off my bleed air and flew the aircraft unpressurized.... I landed the aircraft successfully without any [other] major issues.

Evaluating Credible Risk

■ We elected to return to ZZZ as a precaution and received vectors for the ILS.... We continued to monitor engine indications closely but at no time observed anything abnormal. ATC asked us numerous times if we required assistance or would like to request priority handling, which we declined, as there seemed to be no cause for alarm or need for priority handling. A short time later, ATC advised us that ZZZ Tower was treating us as a priority aircraft, anyway. The remainder of the approach and landing was uneventful. Emergency vehicles escorted us back to the FBO ramp but did not observe any signs of engine trouble. Shutdown was normal, and a post-flight inspection of visible engine areas revealed no abnormality. A subsequent borescope inspection by Maintenance... revealed three missing blades on the Number 2 Engine high-pressure compressor and general damage to the entire compressor due to those blades separating during engine operation. I later learned that this is a known issue for this engine.

Treasurer's Report

Aimee Pereira

Beginning Balance for November:	\$4,871.50	
Expenses	\$35.90	#1083 – Doug St Pierre – food for 3/12 meeting
Deposits:	\$210.00	3/1 - \$150 Donation from John Goode 3/15 - \$29.00 Tips from 2/12 meeting. 3/31 – Tips and coasters from 3/22 Young Eagles during Bamberg event
Ending Balance for November :	\$4,045.60	

Note: Total Earmarked for Young Eagles = \$96.00

A reminder that dues for 2022 are \$25.00 as of January 1, 2022. Dues payments may be paid in person at the next meeting or sent to the following address:

Aimee Pereira
107 Timberlake Ct
Summerville, SC 29485

If you are not sure if your dues are paid for 2022 or have any questions, I can be reached via email at: caa477.treasurer@gmail.com.