EAA Chapter 172

May 2025

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UPCOMING CHAPTER EVENTS

Saturday, May 10 at 11:30am - Member Gathering at Pea Patch
Topic is "Recap of Sun 'N Fun"
Lunch will be grilled hamburgers and hot dogs.
Bring a side dish or dessert to share

Thursday, May 22 at 6:00pm – Eat-out at The Chop House
3450 Wrightsboro Rd, Augusta, GA (at Augusta Mall)

Saturday, June 12 – Member Gathering (location TBD)
Thursday, June 26 – Eat Out

Chapter President's Message

As spring lifts off in full force, I hope your flying season is off to a great start! Our next member gathering promises to be both exciting and informative, and I want to personally invite each of you to join us. We'll be sharing highlights from this year's Sun 'N Fun – a fantastic opportunity to catch up on the innovations, aircraft, and camaraderie that make events like this so special. Whether you made the trip or not, this will be a fun way to relive the experience or see what you missed.

Also, be sure to read the article on page 3 of this newsletter, a blog post I found about the future of electric aircraft. This emerging field is shaping the future of aviation, and it's something every pilot and builder should keep an eye on.

Finally, I'd like to encourage everyone to bring a guest to our meetings. Whether it's a fellow pilot, a curious friend, or someone who's just starting to dream about aviation, our chapter is a great place to share that passion. See you at the meeting!

- *Sandy*

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May Eat-Out

Our next eat-out will be Thursday, May 22, at The Chop House at the Augusta Mall, 3450 Wrightsboro Road, Augusta, GA. Come at 6:00pm; we will be ordering by 6:30pm. If you have questions or wish to add your name to the reservation list, please contact Sheila Connell, phone 706-832-2058.

Below are pictures from the April eat-out at PF Chang's. It was great to see Don and Virginia Bush again!

EAA Webinars

Explore free EAA webinars in May and June for FAA WINGS and AMT credit, featuring topics ranging from air racing history to IFR approaches and stall avoidance. Register at www.eaa.org/eaa/news-and-publications/eaa-webinars. This one sounded especially intriguing.

Security Violation | ***Qualifies for FAA WINGS credit***
Wednesday, May 7, 2025, 7 p.m. CDT
Presenters: Mike Busch

One of the joys of travelling in a general aviation airplane is not having to stand in long lines going through security, removing shoes and laptops, going through metal detectors, and having luggage X-rayed. GA pilots and their passengers are usually spared the indignities of dealing with TSA, but not always. In this webinar, Mike Busch tells how he ran afoul of the TSA while driving to his hangar to depart on a long cross-country. Upon return, he wound up being escorted off airport property, temporarily losing his airport access privileges, and required to go through remedial security training that was actually quite illuminating. One thing he learned is that TSA has absolutely no sense of humor. *Qualifies for FAA WINGS credit.*

Electric Aircraft: Are They the Future of Aviation?

Courtesy of J.A. Air Center (www.jaair.com/electric-aircraft-are-they-the-future-of-aviation) March 31, 2025

The aviation industry is built on innovation. From jet propulsion to glass cockpits, flight progress has always come from pushing technology forward. Today, electric aircraft are emerging as a promising shift in how we think about air travel. With growing environmental concerns and rapid advancements in battery and propulsion systems, electric aviation is starting to look less like science fiction and more like the next logical step.

Still, questions remain. How far has technology really come? Who is investing in it? And what might this mean for the future of flight?

The Evolution of Electric Aircraft

The concept of electric flight isn't entirely new. In fact, the first recorded electric-powered flight dates back to the 1970s, when hobbyists and engineers began experimenting with lightweight gliders and battery-powered motors. These early attempts were limited by the low energy density of batteries, making them impractical for anything beyond short, experimental flights.

Fast forward to the 21st century, and electric aircraft have come a long way. Improvements in lithium-ion battery technology, along with more efficient electric motors and lightweight materials, have made it possible to build aircraft that can carry passengers, operate more quietly, and produce zero in-flight emissions.

Today's electric aircraft range from small trainer planes used in flight schools to larger prototypes aimed at regional travel. While commercial electric airliners are still in development, the foundation has been laid. The industry has shifted from experimental to actionable, with a growing focus on certification, safety, and scalability.

Technological Advancements Driving Electric Aviation

Electric aircraft are benefiting from rapid progress in several high-impact areas. Battery performance is improving steadily, with current lithium-ion systems delivering more power at lighter weights than ever before. Though still a limiting factor in range, battery technology is trending in the right direction, and solid-state designs on the horizon could bring a major leap forward.

Electric propulsion has also matured. Today's motors are compact, highly efficient, and mechanically simple compared to combustion engines. This simplicity opens the door to innovative airframe designs, including distributed propulsion systems that enhance performance while reducing mechanical complexity.

Supporting technologies like advanced composites, digital flight controls, and thermal management systems are helping manufacturers reduce weight and maximize efficiency. Together, these innovations are setting the stage for practical electric flight at scale.

Current Players in the Electric Aircraft Industry

Several companies are shaping the future of electric aviation, each targeting different segments of the market:

- **Eviation Aircraft**: Best known for Alice, a sleek, all-electric commuter plane designed for short-haul regional travel. It completed its first test flight in 2022 and continues to draw industry attention.

- **Joby Aviation**: A frontrunner in the eVTOL space, Joby is developing electric air taxis for urban mobility. Their aircraft promise quiet operation and fast point-to-point travel in crowded cities.
- **Archer Aviation**: Another eVTOL innovator, Archer is focused on building aircraft that can integrate into existing transportation networks with an emphasis on safety, noise reduction, and efficiency.
- **Pipistrel**: A pioneer in electric flight, Pipistrel already offers certified electric aircraft used in flight schools and training environments, proving that electric aviation isn't just theoretical.
- **Airbus**: The aerospace giant is exploring electric and hybrid-electric concepts through projects like the CityAirbus NextGen, focusing on urban and regional air mobility.
- **Boeing**: Through its subsidiary Wisk Aero and other investments, Boeing is supporting autonomous and electric aircraft development aimed at future-ready air travel.

Benefits of Electric Aircraft

Electric aircraft offer several compelling advantages that could reshape the future of aviation. From cost savings to environmental impact, these benefits are driving growing interest across the industry.

- **Lower Operating Costs**: Electric motors are simpler and more efficient than traditional combustion engines. They require less maintenance, use cheaper energy sources, and have fewer moving parts, all of which reduce long-term operating expenses.
- **Reduced Emissions**: With no in-flight carbon emissions, electric aircraft present a significant step toward more sustainable aviation. As the power grid becomes cleaner, the overall carbon footprint of electric flight will continue to drop.
- **Quieter Operation**: Electric motors are significantly quieter than jet or piston engines. This means less noise pollution around airports and in urban environments, a key benefit for both passengers and communities.
- **Improved Energy Efficiency**: Electric propulsion converts more energy into thrust compared to internal combustion engines. This efficiency opens up new possibilities for shorter regional routes and urban air mobility.
- **Innovative Design Flexibility**: Electric systems allow for new aircraft configurations, such as distributed propulsion, which can improve aerodynamics, safety, and control.

Challenges Facing Electric Aviation

Despite the promise of electric aircraft, several challenges still stand in the way of widespread adoption.

- **Limited Battery Range**: Current battery technology doesn't yet match the energy density of aviation fuel. This limits range and payload capacity, making electric aircraft more viable for short trips than long-haul flights.
- **Weight Constraints**: Batteries are heavy, and in aviation, every pound matters. Balancing weight while maintaining performance and safety remains one of the industry's biggest technical hurdles.
- **Charging Infrastructure**: Airports are not currently equipped with the charging stations and electrical capacity needed to support a fleet of electric aircraft. Building out this infrastructure will take time and investment.
- **Certification and Regulation**: Electric aircraft represent new technology that doesn't always fit neatly into existing certification categories. Regulatory bodies like the FAA and EASA are still developing frameworks to evaluate and approve these aircraft.
- **Market Readiness**: While there's growing interest, the industry still needs to prove the long-term reliability, safety, and cost-effectiveness of electric aviation before large-scale adoption can occur.

Hybrid-Electric Aircraft: A Transitional Solution?

Hybrid-electric aircraft are emerging as a practical bridge between conventional and fully electric flight. By combining traditional engines with electric motors, they reduce fuel use and emissions while extending range beyond what batteries alone can currently support.

These systems also offer operational flexibility and added safety through redundant propulsion. Manufacturers are targeting short- to mid-range routes, where hybrids can deliver meaningful environmental gains without the limitations of all-electric designs.

As battery and charging technologies continue to evolve, hybrid aircraft could play a key role in helping the industry transition to fully electric operations over time.

The Road Ahead: Predictions and Timelines

Electric aviation is advancing, but full-scale adoption will take time. The near future will likely see growth in smaller electric aircraft and urban mobility solutions, especially for short routes and flight training.

Wider commercial use depends on improvements in battery technology, certification processes, and infrastructure. While timelines vary, most forecasts place fully electric regional and commercial aircraft entering broader service sometime in the 2030s.

Continued investment, innovation, and regulatory support will determine how quickly electric aviation becomes a mainstream part of the industry.

Key Takeaways

Electric aircraft are gaining traction, with real progress in both fully electric and hybrid designs. While widespread adoption is still ahead, the direction of the industry is clear.

As aviation evolves, J.A. Air Center remains committed to staying ahead of the curve. Whether you're upgrading your aircraft or exploring what's next, we're here to keep you flying forward.

Image from www.jobyaviation.com

Chapter Shirts & Other Gear

David Cress, our chapter Vice President, operates a business of printing and embroidering logos on shirts, hats and promotional items. He volunteered to update our logo image and use his supplier connections to give us discounted pricing for shirts and hats. David has created a website where you can order shirts and other items personalized with our chapter logo. **More items have been added to the website!**

https://www.davestease.com/shop/category/eaa-172-15

Collared polo shirts and plain tees will be available in white or light blue 50/50 cotton blend with our embroidered logo. Shirt sizes are unisex; women's sizes with v-neck can be special ordered. If you want a pocket on your shirt, the logo will need to be printed instead of embroidered. David will handle payment directly and deliver your order to a chapter event, if you wish. David's email is dave@davestease.com if you have any questions.

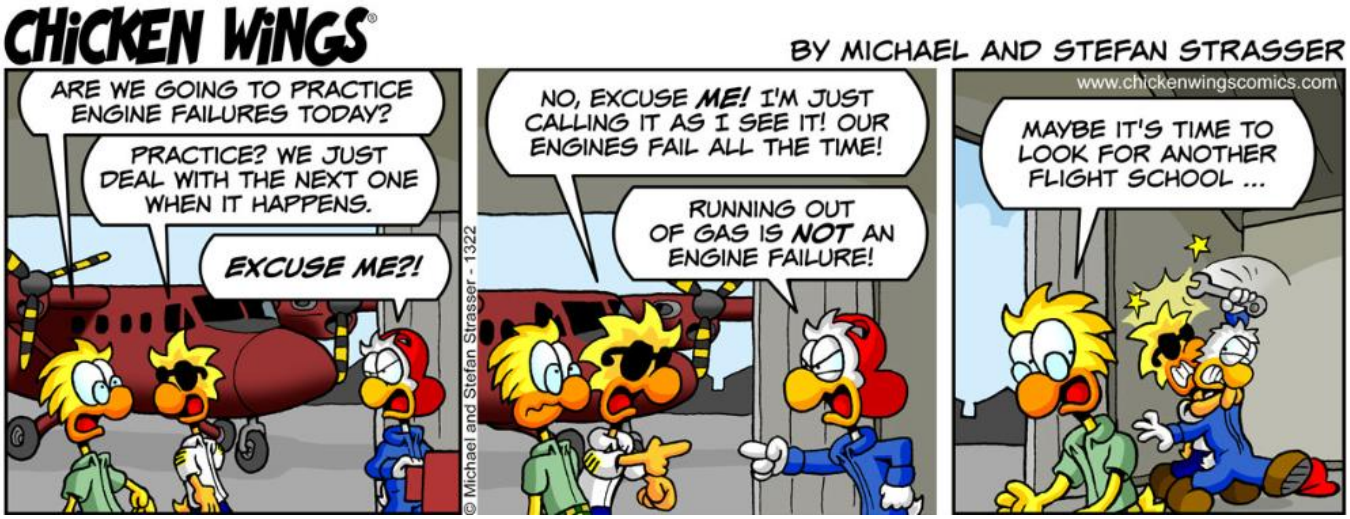
SC Breakfast Club Schedule

2025

Date	City	Airport Name	Unicom	Airport ID
May 18	Manning, SC	Palmetto Air Plantation	122.8	SC41
June 1	Rock Hill, SC	Rock Hill (York Co) - Bryant Field	123.05	KUZA
June 15	Greenwood, SC	Greenwood County	122.975	KGRD
June 29	Salisbury, NC	Mid-Carolina Regional	122.725	KRUQ
July 13	Florence, SC	Florence Regional	ATC	KFLO

Other Upcoming Events

May 7 FAAS Presentation at Bush Field "Loss of Control" 6:30pm
May 9 -16 Joe Nall (RC) Week at Triple Tree
May 23-25 Midsouth Sailplane Soaring Championship at Triple Tree



Identify this Airplane

LAST MONTH

Last month's picture was a **Embraer Phenom 300**, a a light business jet manufacturer by Brazilian company Embraer. Certified for single-pilot operations, it can carry up to 11 occupants. The prototype first flew in April 2008. By 2013, it was the most delivered business jet. The aircraft is a twin-engined cantilever monoplane with low-positioned swept wings, powered by Pratt & Whitney Canada PW535E turbofan engines mounted at the rear of the fuselage on pylons. [courtesy of Wikepdia.org]

THIS MONTH

Just for fun, see if you can identify the airplane pictured to the right. The answer will be revealed in the next newsletter.

Free Advertising

Kent Sidel is selling his **Aerolite 103 Ultralight**, asking $20,000. Interested buyers should contact Dana Linn at Star Light Sport Aircraft, Twin Lakes Airport, Graniteville, SC, phone 803-439-9118.

WHERE TO FIND US:
EAA172 meets every 2nd Saturday of the month at several locations around Augusta, GA throughout the year. However, our primary meeting place is at our chapter clubhouse on Pea Patch Aerodrome (61GA) in Blythe, GA. Take Route 1 toward Blythe, turn south at the Citgo/Quik Mart station onto Bath-Edie Road. At the first intersection, turn right onto Patterson Road and follow ¼ mile. Make a left turn onto Boulineau Road (across from the Rec Center) and drive 1 mile. The entrance to Pea Patch is on your right. The clubhouse is at the end of a row of hangars next to the grass strip, just south of the windsock. Pea Patch Aerodrome CTAF is 122.70.

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