EAA691

APRIL 2026

ISSUE 2604 CHAPTER NEWSLETTER

John George over the Sangre de Cristo Mountains

Northern New Mexico

photo credit: Andrew DeVecchio

www.eaachapter691.org

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Letter from the Editor

by Andrew DeVecchio

Again, I spent more time this month in airports with fancy lounges than ones predominantly furnished with lawn chairs. I much prefer the latter. I was able to get some work done on N39RW and have about a week left before I leave again, so hopefully I can get those brakes back in there.

It was fun to follow the Artemis II mission this month. It brought back a lot of childhood dreams of becoming an astronaut, and I was happy to see their safe return. One particular moment got me good. The crew decided to dedicate an unnamed crater to Carroll, the late wife of mission commander Reid Wiseman. Carroll Wiseman died of cancer in 2020 at the age of 46. This has a lot of personal meaning to me, and along with that, it's a great reminder of how amazing these crews are to each other. I think as we continue to venture further from Earth, we're only going to become more reliant on one another. So just remember that, mission big or small, we're all one.

Finally, I had a great suggestion from one of our readers. He reminded me that we all have great aviation stories and we love to talk, so if you've got one you'd like to share, please send it in. I'd love to include your adventures, battle stories, or anything in between.

Send your stories to:
helloeditor691@gmail.com

– Andrew

Upcoming Events

Saturday April 25th

Flying New Mexico by Trike
Presenter: Jeff Gilkey

Time: 10:30 AM Donuts and Coffee, 11:00 AM Presentation
Place: PEEC, Nature Center Planetarium
2600 Canyon Rd, Los Alamos, NM 87544
Questions: helloeditor691@gmail.com

Northern New Mexico Chapter 691 of the **Experimental Aircraft Association** (EAA) will meet **Saturday, April 25** in the Los Alamos Nature Center Planetarium, operated by the Pajarito Environmental Education Center (PEEC). The program will feature a special video presentation by **Jeff Gilkey** entitled **New Mexico from the Air**. The meeting, open to the public, will begin at 10:30 with coffee, pastries, and informal discussion, followed by the presentation beginning at 11:00

The Nature Center Planetarium is located at 2600 Canyon Rd, Los Alamos, NM. This is near the western end of Canyon Road, just north of the intersection of Canyon with Central Avenue and the LA Aquatic Center.

Upcoming Events

(cont'd)

This unique planetarium experience showcases sweeping aerial footage captured from a motorized hang glider or "trike", offering a fresh perspective on New Mexico's canyons, mesas, and geological wonders, as well as other Southwest landscapes. Gilkey will share insights into the filming process, the aircraft used, and the remarkable features of the terrain that are best appreciated from above.

Jeff has been involved in aviation most of his life. He flew hang gliders in California and NM in the 80's and 90's, including over 200 flights from the Sandia Crest. He studied aerospace engineering in college, and worked on navigation, guidance, and control systems at Sandia Labs, retiring in 2016.

Since 2004, he's flown his experimental light sport weight-shift control aircraft, logging over 2500 hours on cross country trips into nearly every corner of New Mexico and across surrounding states. For Jeff, the trike is the perfect flying machine, combining the intuitive natural wing controls of a hang glider, and the low-speed cruise, long distance capability of an efficient engine with a large gas tank.

A few years ago, Jeff mounted a GoPro 360 camera on the wingtip of his trike. This "spherical acquisition" camera is essentially a melding of two high resolution cameras with fisheye lenses, that capture and record all directions from the camera's location. He soon realized the only place that could adequately display these extremely immersive videos was a planetarium dome, though recently he has begun exploring the use of VR goggles for an even more intimate experience. Jeff has created the ultimate aerial tour, revealing the wild and obscure scenic wonders of New Mexico and the Southwest.

Jeff serves on the Board of the Directors of the New Mexico Pilots Association (NMPA) and writes the "Obscure and Scenic New Mexico" column for the NMPA newsletter https://www.nmpilots.org/Obscure_and_Scenic_NM

You can find his YouTube videos at https://www.youtube.com/user/jefftrike

Upcoming Events

Saturday May 16th

Tales of a Test Pilot
Presenter: Eric Aiken

Time: 9:30 AM Donuts and Coffee, 10:00 Chapter meeting, 10:30 Presentation
Place: KSAF, Atlantic Aviation
109 Aviation Dr, Santa Fe, NM 87507
Questions: helloeditor691@gmail.com

Saturday June 20th

A Bad Day on 27
Presenter: Omar Wooten

Time: 9:30 AM Donuts and Coffee, 10:00 Chapter meeting, 10:30 Presentation
Place: Terminal Building, Los Alamos Airport
1040 Airport Rd, Los Alamos, NM 87544
Questions: helloeditor691@gmail.com

Presidents Report

by Will Fox

One thing that you see a lot of are Smiles at a Young Eagle Rally. It is fun for youngsters and oldsters☺️

Aviation Is Starting To Boom Again

There is an aviation boom in the making that should excite anyone interested in the world of aviation. The FAA MOSAIC rule is greatly expanding the type of aircraft that pilots will be able to fly in the future. From complex high performance sport aircraft to electric VTOLs, the gloves are off and manufacturers have begun to build some remarkable aircraft. Speaking of MOSAIC, our own Keith Tschohl gave an excellent presentation at last month's meeting on the MOSAIC rule and its ins and outs. Keith's presentation is now available on our chapter YouTube channel for those that missed it.

This month we will have a special treat for our aviation community. EAA Chapter 691 is teaming with the Los Alamos Pajarito Environmental Education Center (PEEC) Planetarium to bring us a presentation by Jeff Gilkey on *Flying New Mexico By Trike*. Jeff's low and slow, up close and beautiful videography will make for an outstanding visual presentation in the planetarium. The presentation will be on April 25, 2026 at 11:00 am at PEEC, which is just two miles west of the airport at 2600 Canyon Road, Los Alamos, NM. There is a nice trail from the airport that you can take if you fly in and want to walk. Please note that we will not be having our normal meeting at the Los Alamos airport on April 18th because of Jeff's presentation on the 25th. I hope to see you all there, and you might want to bring the family along because PEEC has a lot of stuff for kids to see and do.

EAA Chapter 691 along with the Pajarito Environmental Education Center will host a presentation by Jeff Gilkey on *Flying New Mexico By Trike* in their planetarium on April 25, 2026 at 11:00 am

Check out our Chapter YouTube channel for the latest videos at
https://www.youtube.com/@eaachapter691
For a schedule of upcoming events, go to the Chapter website at
https://www.eaachapter691.org/upcoming-events/

Flyers Almanac

April into May: Thermals

by ChatGPT / Andrew DeVecchio

By mid-April, northern New Mexico crosses a seasonal line.

Winter loses its grip. Not all at once—but enough that surface heating takes over as the primary driver.

The atmosphere shifts from horizontal motion to vertical motion.

What replaces winter's structure isn't chaos—it's energy rising from the ground up.

Lift and Motion

Thermals define the day.

- Mixing begins late morning
- Peaks mid-afternoon
- Tops commonly 8,000–12,000 ft MSL

Expect:

- Increasing chop below 10,000 ft
- Moderate turbulence in climb and descent
- Rapid swings in vertical speed

This isn't mechanical. It's buoyancy—and it builds wherever the ground heats unevenly.

Wind and Structure

March winds ease, but don't disappear. They mix with thermal activity instead.

- Surface: lighter, more variable
- Aloft: W–SW 20–40 kt above 10,000 ft
- Gusts tied more to heating than systems

Expect:

- Sudden afternoon gusts
- Variable crosswinds on final
- Brief but noticeable wind shifts

The air isn't being pushed. It's being stirred.

Clouds and Development

Moisture begins to return—slowly.

- Isolated cumulus over higher terrain
- Flat bases, limited vertical growth
- Occasional virga and localized downdrafts

By late April into May:

- Early convective buildups appear
- High-based showers possible

Not monsoon. But no longer dormant.

Pilot Takeaway

April into May is defined by vertical motion.

Less steady wind.
More thermal energy.
More variability through the day.

Smooth early. Active late.

Fly early for comfort.
Fly later to understand the air.

Expect:
Temp: 80–30°F
Wind: W–SW 10–20 kt avg, variable gusts
Sunshine: 9–10 hrs/day
Precipitation: Mostly dry, isolated high-based showers

Key Factor: Thermals, vertical motion, and timing

Tech Corner:
Aviation is Looking Up

by Will Fox

I got up before sunrise a couple of days ago and walked to the top of a nearby hill with a cup of hot chocolate to watch the sun come up. When I got there, I saw an unusual sight over the Sangre de Cristo mountains to the east. The early morning light was illuminating some feathery looking lenticular clouds over the mountains that were glowing magenta in the rising sunlight. They were incredibly beautiful, but above them was a brighter pink colored contrail that began east of the mountains and was growing in length as it came my way. The contrail had started below the lennies and then passed thru them as it abruptly turned upward in a steep climb.

I could only see a small dot at the head of the contrail and could not make out the type of aircraft that was climbing at such angle and phenomenal rate. As it continued its climb through various atmospheric layers the beautiful pink contrail would disappear and then reappear as if by magic. As the aircraft climbed higher and higher the contrail became more brilliant. Still too far away to see what was making it, the contrail abruptly disappeared along with the tiny dot at the point of it, as if the craft had left the Earth's atmosphere behind. The mountains, feathery glowing clouds and the soaring multicolor contrail made for an incredibly inspiring sight and got me to contemplate the coming future of aviation.

New eVTOL aircraft from Joby and Archer will begin pilot programs to integrate them into the NAS this summer

There is so much happening in General Aviation right now. Futuristic eVTOL electric aircraft intended for commercial operations in urban and intercity environments will begin flying the airways as part of the **eVTOL Integration Pilot Program (eIPP)**. Several states, including New Mexico,

will participate in the pilot program. These electric eVTOL aircraft will have ranges of 100 to 150 miles and operate in both piloted and autonomous modes. In addition, hybrid electric aircraft will also begin to fly in the National Airspace System (NAS), hauling people and cargo up to 1000 nautical miles along commercial routes.

Personal eVTOL aircraft like the Jetson and Pivotal Helix are commercially available today and can be flown as an ultralight aircraft under Part 103. The new FAA MOSAIC rule is encouraging further development of Sport Aircraft eVTOLs such as the Air One and Skyfly

The Pivotal Helix eVTOL (Top) is being built not only for sport flying but also for Emergency Medical Services, public safety, and disaster response scenarios. The JMB VL3 (bottom) is a high performance, complex, light sport aircraft that can be flown by Light Sport Pilots

that can be flown will a Sport Pilot's license. MOSAIC has also expanded the number of conventional aircraft that can be flown under the Sport Pilot rules including high performance certified aircraft like some early model Beech Bonanzas and Cessna 182s. MOSAIC will also allow a sport pilot to fly other types of high performance, complex aircraft like the JMB VL3, Veloce Risen, and the Shark Aero, which are capable of cruising at 180 mph or more. The FAA will require additional endorsements from a CFI for a Sport Pilot to fly these types of aircraft. That makes sense given the significant transition from simple light sport aircraft to high performance, complex aircraft. The number of experimental aircraft available to a Sport Pilot will also increase and will include most of the popular Vans RV series and others like the Glasair Glastar and the Sonex/Waiex amatuer built aircraft. The list goes on and on and reflects an incredible increase in the number of traditional and new aircraft a Sport Pilot will be able to fly.

The US is cranking out more pilots as well based on the FAA Civil Airman Statistics Report. The number of US pilots in 2025 was 887,519 up from 848,770 in 2024 and 691,691 in 2020. The number of student pilots in 2025 was 370,286, up from 345,495 in 2024 and 222,629 in 2020. The number of Private pilots in 2025 was 174,155 up from 172,012 a year earlier and 160,860 in 2020. The number of Sport Pilots in 2025 was 7,450 up from 7,309 in 2024 and 6,643 in 2020. Similarly the number of mechanics and repairmen also increased significantly in 2025 to 348,426 and 41,395 respectively. The myth of a declining population of airmen in the US is just that, as we see a significant increase in the numbers across the board.

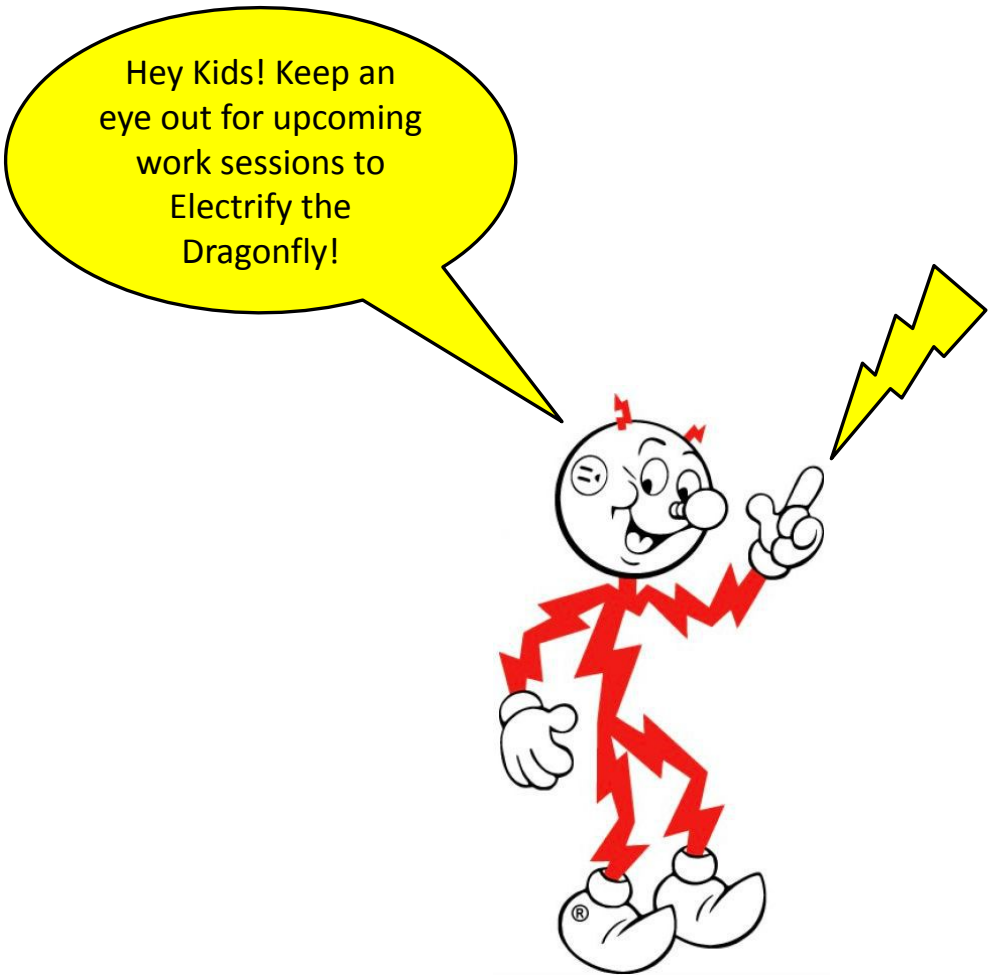
The US program to establish a permanent base on the moon by 2028 has been kick started with additional funding and new leadership. The US is well underway to this goal with the success of the Artemis II mission. The astronauts flew an elongated path around the moon setting a record of 252,760 miles from Earth, the farthest any humans have ever been away from the Earth. The SpaceX Starship 12 launch is scheduled for late spring and is planned to be an orbital mission that will also attempt to demonstrate the capability to refuel a large rocket in space for the first time ever.

These are indeed exciting times and promise a great future for Aviation.

The Artemis II rocket launch on April 1, 2026 was a dramatic start to a new Space Race to establish a permanent base on the moon

Dragonfly Project Update

Stay tuned here. I'll have some updates on the brakes, wheels, fairings, new firewall forward, and new panel and instruments in the following months.



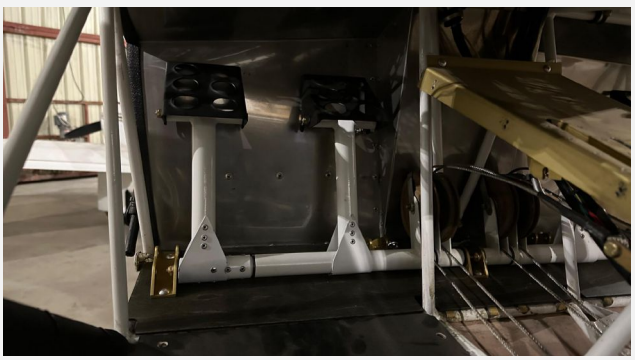
Editors Log: Kitfox N39RW

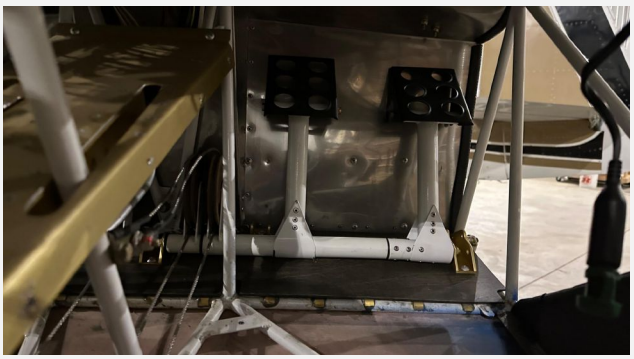
by Andrew DeVecchio

I got the pedals back into the plane. They feel great!

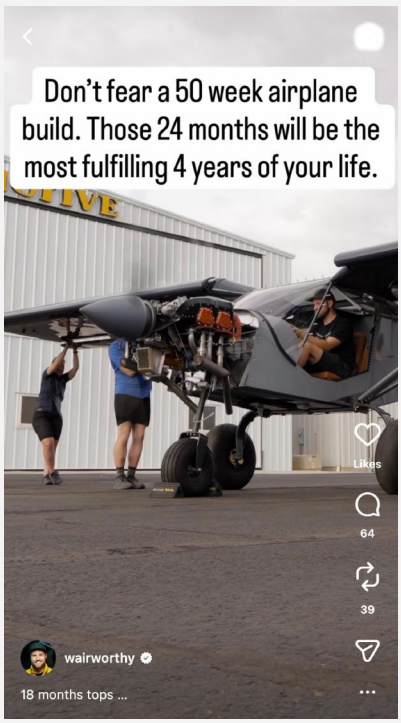
There was an issue where they were a bit sticky. It's hard to explain but it's a common issue in a Kit Fox from this era. David Roe let me use his lathe and we made some sanding blocks on a dowel to hone out the inside of the tube.

I had these apart about a dozen times. Each time I would grease it up as if I was going to finally rivet things back together. I wanted to feel what it would actually be like so I didnt mind the back and forth but it sure did slow the process down.





I would be lying if I said I felt like I was making quick progress. But progress is progress and thats all that matters. I recently saw this post from a builder I follow on Instagram and it really hit home.



Clickbait!

Looking Back at the Overnight Destruction of Meigs Field

https://www.flyingmag.com/looking-back-at-the-overnight-destruction-of-meigs-field/

In 2003, Chicago's mayor ordered crews to secretly destroy Meigs Field overnight, carving trenches into the runway without notice and stranding aircraft, bypassing FAA rules and prior agreements.

The city faced only minor penalties, but the incident became a lasting cautionary tale—leading to stricter laws and reminding pilots how quickly an airport can disappear due to political decisions.

Sonex Shuts Down

https://avbrief.com/sonex-shuts-down/

Sad news worth sharing with the chapter: Sonex LLC has announced it is shutting down immediately, with owner Mark Schaible citing bank pressure and a drop in sales as the cause. The company had over 2,100 aircraft projects registered worldwide and more than 700 flying, leaving a real void in the affordable kit aircraft market.

Artemis 2 crew proposes naming moon crater after commander's late wife

https://www.youtube.com/watch?v=DYzyn5T5-Aw

Artemis 2 mission specialist calls down to mission control tor propose naming a moon crater after commander Reid Wiseman's late wife Carroll.

They also proposed naming another crater Integrity, after their Orion spacecraft.

Catching Up

by Claude / Andrew DeVecchio

Density Altitude

Summer is coming, and if you fly out of any of the high desert airports around New Mexico, density altitude isn't just a test question you memorized for your written exam — it's a real and present danger that deserves a fresh look.

Most of us know the basics: density altitude is pressure altitude corrected for non-standard temperature. When it's hot and high, the air is thin, and your airplane doesn't know the difference between sitting at 8,000 feet on a cool day or a "sea level" airport baking at 100°F. The engine makes less power, the prop bites less air, and the wings need more speed to generate lift. Everything suffers, all at once.

Here's where it gets personal. On a hot summer afternoon at Santa Fe (6,348 ft elevation), the density altitude can easily push past 9,000 or even 10,000 feet. Your POH performance charts don't lie, but a lot of us stopped reading them as carefully as we did during our checkride prep. When did you last actually run the numbers before a summer departure?

The gut check before you go

Before you taxi out on a hot day, ask yourself a few honest questions:

- Is the airplane loaded to or near gross weight? Because today is not the day to push it.
- Are you departing in the afternoon heat? An early morning departure on a hot day can make a dramatic difference in performance.
- What does the runway give you, and what does your POH say you actually need?

If any of those answers make you uncomfortable, you have options. Leave some fuel behind if your range allows it. Ask your passenger to meet you at the next stop. Bump that cooler out of the baggage compartment. A few pounds and a few degrees can mean several hundred extra feet of runway — and that math matters when the trees at the departure end aren't getting any shorter.

The number worth knowing

A rough but handy rule: for every 1,000 feet of density altitude, expect roughly a 10–15% degradation in takeoff performance. That number compounds fast when you're already at elevation and the temperature is climbing. Do the math before you're rolling and wishing you had.

Density altitude has humbled pilots far more experienced than any of us. It doesn't announce itself, it doesn't show up on the weather briefing in big red letters, and it has no sympathy for a "she'll be fine" attitude. But it is entirely predictable — and that's the good news. The tools are in your POH, and the habit is just a matter of dusting it off.

Quick Density Altitude Estimate

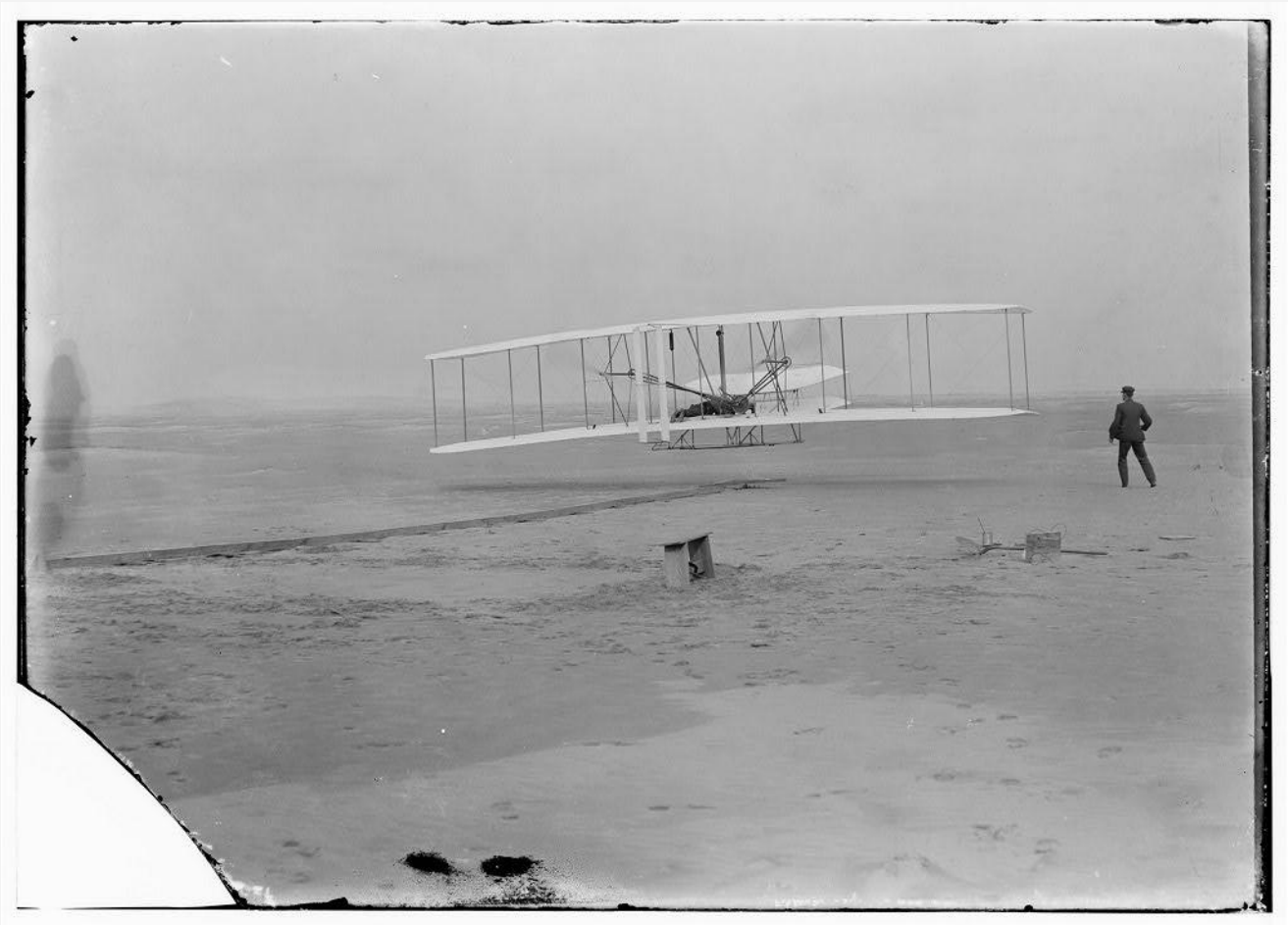
Don't have a flight computer handy? Use this rough formula:

> **Density Altitude ≈ Pressure Altitude + (120 × (OAT°F − Standard Temp°F))**
>
> *Example: Pressure altitude 6,500 ft, OAT 95°F, Standard Temp 47°F 6,500 + (120 × 48) = 6,500 + 5,760 =* ***~12,260 ft density altitude***

And finally…
Time for a laugh

Two wrongs don’t make a right

but what do two rights make?



An airplane

EAA Chapter 691 Membership Application/ Renewal Form

Please consider making a donation to our 501c(3) non-profit by mailing this form along with $35 to our Chapter Treasurer, Checks can be made out to <u>EAA Chapter 691</u>:

David Young
819 Gonzales Rd
Santa Fe, NM 87501

Name: _____
Spouse/partner's Name: _____
EAA #: _____ Expiration Date (MM/YY) _____ / _____
Address: _____ City: _____
State: _____ ZIP: _____
E-mail: _____
Home phone: _____
Work phone: _____
Cell phone: _____
Please list your currently flying A/C and any finished or in-progress projects:

www.eaachapter691.org