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Fresh and Renewed 172s



**Cessna Seat Slippage
and Seat Rail Maintenance**

The AeroVonics AV-20-S

A Slice of Aviation History: Waukesha County, Wisconsin



Fresh and Renewed 172s



It's a sterling afternoon at Glendale Municipal Airport (KGEU), a few miles northwest of Phoenix. Fifty-four-year-old John Calhoun is gently running his right hand over the cowl of a gleaming gold-and-white Skyhawk that's smartly accented with dark chocolate and maroon stripes.

Revved up like a turbocharged Lycoming, he's excitedly talking about building "perfect" 172s. New engine, paint, leather seats, glass instrument panel, multi-axis autopilot, corrosion-free airframe...

"This plane rivals a new 172, but it's less expensive," he says of N24KK. "Lots less." The recently-refurbished Cessna 172M is owned by Doug Griffin of Venice, Florida.

Enthusiasm can be contagious, and Calhoun has enough for several people drinking way too much coffee. He's a 15,000-hour pilot who earned his private pilot certificate at 6 a.m. on his 16th birthday. Six hours later, he bagged his driver's license. One year after that, he secured his IFR and commercial ratings on the same checkride, followed by multi-engine, multi-engine commercial, CFI and ATP ratings in subsequent years.

For the past six years, Calhoun has been on a mission with his business partner Carla Inman, a former Procter & Gamble executive who's logged 1,500 hours in the left seat with Calhoun. They founded an airplane refurbishment business in Scottsdale, Arizona, called Fresh Aircraft Sales, that's restored and sold 87 planes.

The partners have a special affection for Cessnas and are now laser-focused on 172s, 182s and the occasional 210.

A big catalyst for Fresh's success has been Dynon Avionics near Seattle. Dynon introduced real competition into the avionics market by offering innovative, high-quality, user-friendly, U.S.-made products that are shaking up the panel space.

"Flying a highly-capable plane that you're proud of shouldn't cost so much," said Calhoun. "Our focus is on producing refurbished planes that look great inside and out, equal factory-new specifications and have great avionics suites without breaking the bank."

After 34 years of flying and owning several planes—including a 1972 Cessna 210—I was intrigued with Fresh Aircraft's call to arms. Like most General Aviation pilots, I fly for fun while working for a living.

I've nonetheless been deeply involved with restoring several planes. Some people really enjoy that. Not me. I've found

Arizona-based Fresh Aircraft Sales refurbishes Cessna 172 Skyhawks to like-new condition, including a new engine, paint, interior and 21st-century avionics provided by Dynon.

by Kevin Knight

it's an expensive time suck that's kept me earthbound. Getting educated on interiors, paint stripping, painting, engine parts, warranties, avionics, airframe components, etc. has been interesting—but it's cost me flying time and family time. Coordinating with various vendors offers all the fun of contract negotiations I do at work.

I just want to fly safely and occasionally brag on my plane. As my grandfather used to say at his butcher shop when I was a kid, "Sometimes it's nice letting someone else cut the steaks."

In the beginning...

Calhoun's father was an oral surgeon in Arizona who had a large ranch growing cotton and alfalfa. One of Calhoun's earliest memories was sitting in the right seat of the family plane, holding the yoke like his dad.

"I learned to fly in a [Cessna] 182, but we had planes ranging from Beech Barons to a King Air 90," he recalls. "When I went to the University of

Arizona in Tucson to study business and math, I got a Turbo 182 with retractable gear so I could visit home on weekends. The summer of my sophomore year I flew [Grumman] Ag Cats, spraying cotton.

The two summers after that, I flew [de Havilland Canada DHC-6] Twin Otters for a jump school. It was a great learning experience and loads of fun."

After graduating, Calhoun put his engaging personality to work founding a successful tractor leasing business that served the western United States. He sold that business at age 29 and transitioned into aviation and ground transportation.

Six years ago, Inman and Calhoun saw a need for upgrading planes at reasonable costs, and that led to the creation of Fresh Aircraft Sales. They sell to individuals but have a special interest in flight schools and training programs, since that supports growth in General Aviation.

"Dependability means a lot to flight schools and pilots," said Calhoun. Two large training groups recently engaged to purchase six Fresh 172s. "Countless people have told us they're tired of dealing with ugly, broken-down planes."

"You wouldn't go to a driving school if the cars were a bunch of beaters," Calhoun continued, "yet that's what many people see when they visit flight

programs. We want to change that, because ugly is bad for business."

A Fresh example

One person who recently drank the Fresh water is Doug Griffin in Venice, Florida. A 54-year-old graduate of Auburn University with 2,000 flight hours, Griffin worked in public and corporate accounting for 28 years. Griffin earned his private, commercial and CFI ratings in his teens and wanted to fly Navy like his grandfather. Unfortunately, his eyes got nearsighted, so he focused on ledgers more than flight logs.

Married with five children, Griffin realized a few years ago he missed the smell of Avgas and decided to start a flight school called Suncoast Aero Group and flying club at Venice Municipal Airport (KVNC). He also established a popular, nonprofit educational program on aviation for students at Venice High School.

To get future flyers airborne, Griffin needed some solid, attractive, affordable planes to fill his hangar. A Southwest

Airlines pilot suggested he talk with Calhoun.

"The accountant in me knew the new tax reform act would let us immediately depreciate the entire cost of planes for our business. That's attractive on multiple levels," said Griffin. "The pilot and

instructor in me wanted to make sure it was money well spent."

"I started by purchasing two 172s from Fresh Aircraft and they are stunning, particularly the latest one. You'd never know it was an M model built in 1975. There are only 1,600 hours on the airframe but the paint, interior and panel are—in my opinion—better than what I would have got in a new plane that would have cost more than twice as much."

"I'm particularly impressed with the Dynon panel [that] Aerosecure Avionics installed. Garmin makes great products, but I prefer flying behind the Dynon glass." Griffin first saw a pair of dual Dynons that a local EAA member had installed in his homebuilt plane. Now he—and the rest of us—get to enjoy Dynon's products in certificated aircraft.

"When 24KK was delivered to us, I was blown away by its fit and finish—but the panel is what stunned me. It was love at first touch. After 30 hours in the plane since March, I'm learning something new every flight. The wow factor is

"You'd never know it was an M model built in 1975. There are only 1,600 hours on the airframe...."



Top to Bottom, Left to Right: Custom leather seats are standard and available in a variety of colors. Side panels, carpets, headliners and plastic parts are replaced or upgraded as appropriate.

John Calhoun (left) and Aerosecure Avionics founder Richard Snider.

Richard Snider, shown here working on a Fresh Aircraft 172, is also the head installer for Aerosecure Avionics.







N24KK's panel features 21st-century avionics from Dynon, coupled with a Garmin GNS 430 navcom. A panel-mount Apple iPad can be added for monitoring traffic and weather.

still there because the glass screens are so intuitive and beautiful.”

Avionics innovations are driving change

A quick history lesson is in order. When I got my private ticket in 1983, BendixKing dominated panel avionics. Its KX-155 radio was like something out of “Star Trek,” since it had a luminescent display and flip-flop switch. Navigation

“When 24KK was delivered to us, I was blown away by its fit and finish—but the panel is what stunned me.”

was done tracking VOR and NDB signals, or periodically looking up from a map while hunting for landmarks.

In 1989, two King employees, Gary Burrell and Min Kao, founded ProNav (now Garmin) in Kansas. In 1991, ProNav’s first product was a \$2,500 GPS unit whose alpha customer was the Army.

Seven years later, Garmin introduced the wildly-popular GNS 430 panel-mount GPS navcom, a fabulous product that’s still beloved in thousands of planes.

In fact, many of the planes Fresh refreshes have GNS 430Ws installed, so they’re legal for IFR flight when coupled with Dynon’s glass and autopilot.

In 2000, Dr. John Torode, an avid pilot and computer science professor from UC Berkeley with degrees from MIT and the University of Washington, founded Dynon Avionics near Seattle. His goal was to create innovative avionics for experimental aircraft.

Thanks to recent FAA initiatives that are finally updating regulations to promote greater safety, Dr. Torode’s high-value, (relatively) low-cost products are mainstreaming into the panels of certificated planes. Read “Dynon: Smashing the Glass-Panel Ceiling” on Page 56 for insights.

Building a Fresh 172

When refreshing planes, Calhoun’s biggest challenge is finding corrosion-free Skyhawks built between 1973 and 1985 that include complete logbooks. He prefers planes from dry, western states like Nevada, Utah, New Mexico and Arizona. Calhoun has a special gift for finding planes in remote places. Most people can’t spend three days getting to and from a remote location and evaluating what’s there.

“If an airframe’s been well-maintained, we’re not fixated on the number of hours. Planes are built to fly,” he said. “The worst thing you can do is not fly it. But it must have complete flight logs so we know its history.”

Once a good airframe is secured, Calhoun’s partner, Inman, works with a paint shop in New Mexico which paints exclusively for Fresh Aircraft. Calhoun owns an interior shop in Las Cruces, New Mexico, which also works exclusively on Fresh Aircraft projects. If glass needs to be replaced, Fresh Aircraft has an experienced A&P handling that.

Engines with more than 700 hours are typically rebuilt and warranted by America’s Aircraft Engines in Tulsa which has overhauled or repaired more than 4,000 engines since 1991. If the customer wants a more powerful engine, Fresh offers this option.

New Dynon glass and a Dynon autopilot are installed at Glendale Airport by Aerosecure Avionics. Aerosecure is largely staffed with highly experienced, former military professionals led by former Army attack helicopter pilot Richard Snider.

“From start to finish, getting the keys to a 172 takes around six months,” said Calhoun. “We typically charge for the



Left to right: John Calhoun, Carla Inman, Doug Griffin. N24KK in the background.

Dynon: Smashing the Glass-Panel Ceiling

In April 2016, the FAA gave General Aviation a big tailwind after making it legal for Dynon's EFIS-D10A to be installed in Type Certificated aircraft.

The company's cutting-edge avionics had proven themselves in 20,000 experimental aircraft for years, but this was a sea change. Cessna pilots were no longer limited to using steam gauges or costly certified glass screens. Technology that's been available in our iPhones for years could now become the centerpieces of our panels.

Randy Lervold, Dynon's Vice President of Sales and Marketing, said, "These affordable panel-mount avionics are breathing new life into aviation—and enhancing safety, which is the FAA's goal. Situational awareness is greatly improved. We know our true airspeed, flight range and more."

"It's even more revolutionary when you couple the panels with a new generation of highly-capable, relatively inexpensive autopilots," he added.

Aerosecure Avionics founder Richard Snider agrees. A former Apache helicopter pilot in the Army, Snider and his team of military veterans is one of Dynon's eight certified installers, although pilots can order fac-

tory direct if they have an IA to complete the proper signoffs after installation.

"Flying night missions across the desert in total darkness meant my life depended on the best available avionics," Snider said from his Glendale Municipal Airport hangar near Phoenix. "Someone flying a Skyhawk or 182 won't have the same risk profile, but they still deserve excellent gear."

"We've installed Dynon systems in lots of experimental planes and certificated airframes as they get approved," Snider continued. "Our experience has been outstanding. [Dynon's] software updates are free and they play well with other devices."

Nothing moves fast in government, however, so watch developments. Garmin recently got a blanket AML (approved model list) allowing dozens of airframes to legally install its G3X glass panel. Autopilot approvals take longer and will require STCs since they involve control surfaces.

Since companies take cues from each other, experience says manufacturers will continue to innovate while growing increasingly competitive—which is the best news pilots have had for years.

original aircraft up front and get a deposit on the upgrades, such as the paint, interior, panel and engine. We charge for our labor at the close, and work as closely with clients as they want.”

A tricked-out factory-new 172 with a Garmin G1000 panel currently costs north of \$400,000. A Fresh 172 with new paint and interior, leather seats, zero-time engine and prop, Dynon panel, autopilot, ADS-B, WAAS GPS navcom and warranty is less than half that.

Speaking of warranties, each Fresh Aircraft comes with warranties specific to its installed equipment, in addition to Fresh Aircraft’s 180-day defect-free warranty on the airframe, paint and interior. For example, Dynon equipment carries a three-year manufacturer’s warranty.

If a buyer has chosen to keep the existing engine in the aircraft, the engine does not come with a warranty. However, if the engine has been overhauled by America’s Aircraft Engines, it comes with a 24-month, 1,000-hour warranty. After that time, the engine warranty is prorated to TBO at 40 hours per month.

“We love General Aviation,” said Calhoun and Inman, who regularly end each other’s sentences. “Flying is a beautiful thing. We want to restore and return planes to the fleet that mirror that experience.”

“One of our clients recently called about a father who had his license, and his daughter wants to get hers. It’s an adventure they want to share in a plane they’ll own. It should be safe, look great and hold its value. That’s exactly what we’re going to give them.” **CF**

Kevin Knight is a 1,000-hour instrument-rated pilot in Dallas. The best plane he’s ever owned is a 1972 Cessna 210 Centurion. Send questions or comments to editor@cessnaflyer.org.

Resources

Dynon Certified – CFA supporter
dynoncertified.com

Aerosecure LLC
aerosecureavionics.com

America’s Aircraft Engines Inc.
overhaul.com

Fresh Aircraft Sales
freshaircraft.com

Suncoast Aero Group
suncoastaerogroup.com