



Fairchild 24

GRANDE DAME of AVIATION

A tough old bird that's short on looks but long on personality

BY RICK DURDEN

IT is never the flashiest of the dowagers among the lovingly tended elders at gatherings of the faithful. The more garish doxies with their chesty Pratt & Whitney radials or hot-water Allison's attract the uninitiated with flash and noise. Yet, while parked a bit away from the crowd, the certain flair of a Fairchild 24 causes true aviation aficionados to realize they are in the presence of one of the grande dames of aviation. A 24 is never the biggest or the fanciest—and certainly never the best looking—at an airshow, but those lucky enough to own one

PHOTOGRAPHY BY MIKE FIZER



are aware of the subtle wonders of true class and breeding in an airplane.

The Model 24 was more than slightly out of step with others in its family of generally unattractive and, on occasion, strikingly ugly airplanes, for it was merely a little homely. In the mid-1920s its sire, one Sherman Fairchild, became completely exasperated with trying to adapt the hopelessly inadequate airplanes of the day to the task of carrying his company's lovingly crafted, high-resolution cameras into the skies. So he did what geniuses have done throughout history when the market cannot provide for their needs. He created his own magic carpet and thus begat a line of airplanes known for their sensible designs, elegant handling qualities, overall utility, ability to carry impressive loads, and almost total indifference to outward appearance. One of the earliest of the line, the Model 71—only a few Fairchild's were ever burdened with a name—became the first airplane to fly on the Antarctic continent when legendary airman Bernt Balchen took one there to support the Ford Trimotor he eventually used to haul the autocratic Richard Byrd over the South Pole. The 71's became so renowned for their aeronautical abilities far from civilization that even today they are revered in the bush.

Fairchild went on to build many thousands of superb-handling, low-wing primary trainers for the Army in World War II. He created a line of transports that seemed to be able to go anywhere someone needed a load hauled and didn't mind if the airplane was not especially pleasing to the eye.

The Fairchild 24 evolved within a few years from the 1932 Model 22, a two-place, open-cockpit, parasol-winged airplane into a four-place, enclosed-cabin, high-wing monoplane powered by the buyer's choice of a Warner radial or Ranger inverted in-line engine. The engine choice would continue throughout the production of the Model 24. During World War II, the military happily took each and every Model 24 that Fairchild could assemble and called it the UC-61. Following the war, Fairchild licensed Temco to build the 24 in Texas—where Temco would also try to build the Luscombe and Swift—eventually with the same sad lack of success as the market collapsed in 1947. The general aviation collapse of that year took down the 24 and Fairchild's attempt at a low-wing, retractable-gear, four-place single, the Model 47. Fairchild then decided to stick with transports, including the F-27 airliner, built under license from Fokker and,





Tom Burmeister's tidy Quonset hut hangar on Iowa's Nash Field is a slice of aviation nirvana. A control stick, and not a space-wasting wheel, is available for both people in the front of the airplane (below).



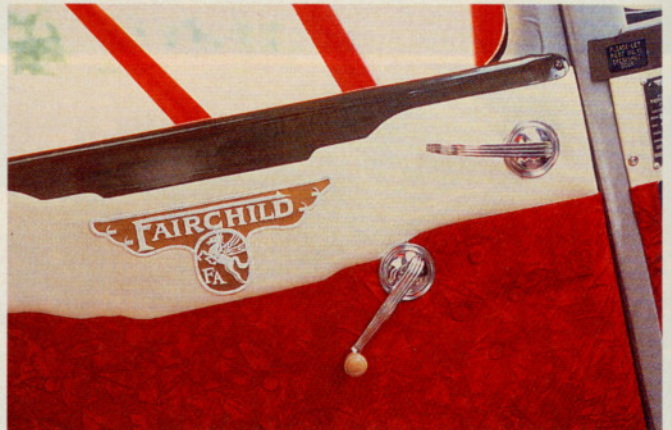
later, a dalliance with Saab and the SF-340 commuter airliner before deciding to go on to other endeavors.

A stunning example of the breed, a Warner-powered 1939 Model 24-W9, is owned and kept in nearly perfect surroundings by Tom Burmeister at Nash Field airport, just south of Des Moines. Graduating from an enlightened public school system with an airframe and powerplant certificate, 18-year-old Burmeister showed he had paid attention to his studies when he chose to buy a Fairchild 24. He recovered his purchase and flew it for about three years before abruptly discovering that a repair made to a landing gear leg some years prior to his ownership was "temporary." After the gear collapse, Burmeister rebuilt his airplane from the bare frame while teaching future mechanics at Des Moines Technical High School. The meticulous job took more than 21 years because Burmeister does not compromise. Today, he is retired from teaching and rebuilds airplanes in a tidy Quonset hut adjacent to the single grass runway of Nash Field, a matter of steps from where he has nearly finished building his new home. Among the gently rolling, peaceful landscape of central Iowa Burmeister has created his own aviation nirvana.

Entering Burmeister's hangar and getting a first look at his 24, one is struck by the manner in which Fairchild used the wing struts to create a flying buttress on each side of the fuselage, giving the landing gear a wider track than other airplanes of its class. The spring-oil shock absorbers at the lower part of the landing gear are conjoined with the wing struts and the front spar of the wing to connect with the strongest point of the airframe, the forward door posts, making a structure that absorbs the loads of flight and landing. While slightly odd looking, it is an interesting way to deal with significant loads and, at the same time, get the greatest possible distance between main gear tires, helping to provide excellent ground handling. This is the first clue that there is more to this airplane than meets the casual eye. The main cabin area and the wing itself are made of wood. The first few wing ribs are shorter than the rest, creating a gull-wing appearance, sometimes causing an observer who doesn't look at the landing gear to briefly confuse a 24 with the larger Stinson Reliant.

Aft of the cabin the fuselage is made of square steel tube, except for the

The exterior may be ungainly, but the Fairchild's interior is simple, elegant, and comfortable.



empennage, which is round steel tube. Wood formers are used to shape the fabric covering of the steel fuselage structure. For all of the wood, fabric, and steel in the airplane, the ailerons are aluminum. The horizontal stabilizer is attached to the fuselage with only four quarter-inch bolts—something that gets one's attention on preflight. There are trim tabs on each of the elevators, but none on the rudder. Those who truly know these airplanes are aware that there is a screw at the midpoint rib of the rudder that can be adjusted to flex the rudder itself, serving as a ground-adjustable trim tab. At a time when vertical tails were built as small as possible to reduce drag—giving many airplanes of this vintage horrible stability in yaw and similar behavior on landing—the large stabilizer pro-

vides a hint that this airplane will go where the pilot points it.

The two wing fuel tanks hold 20 gallons of fuel each and are topped with radiator caps from Chevys of the 1937-39 model years. Fairchild did not waste time reinventing routine components, nor did it limit itself to one supplier. The door handles are 1935 Ford equipment, and the window cranks—yes, the cabin windows do crank open—are from late-1930s' Plymouths. As one is exposed to more and more of the secrets of the Fairchild 24 it becomes apparent that the appropriate automotive comparison is to that of a Cadillac.

While rebuilding his airplane, Burmeister spent some time at a reunion of Fairchild employees in Hagerstown, Maryland. There he learned that the pinstriping he had

laboriously done had also originally been done by hand at the factory and, even when new, the metal wheel pants were hammered out by hand as well. He also learned something he had suspected from many hours of trying to get parts to fit precisely; there are few, if any, 90-degree angles in this airplane.

Prior to flight the Warner engine is checked for the presence of three gallons of oil. After all, this is a radial and, even though not a large one, oil is measured in gallons, not quarts. There is no overhead lubrication for the engine, so the rocker arms on each cylinder must be greased every 15 hours, part of the TLC required for a vintage aircraft. As is common on a classic such as the Fairchild 24, there is approximately one hour of mainte-

nance involved per hour of flight.

Upon opening the door to the cabin one realizes that Fairchild engineers expended more effort on making the interior attractive than they did on the exterior. It is simple yet elegant, and most comfortable. The cabin is not the vast ballroom of a Stinson Reliant or Beech Staggerwing, yet it is sized for persons who are of more than modest stature. It is also well prepared for the approximately 740 pounds that can be carried in the cabin when loaded with full fuel on the way to a gross weight of 2,550 pounds.

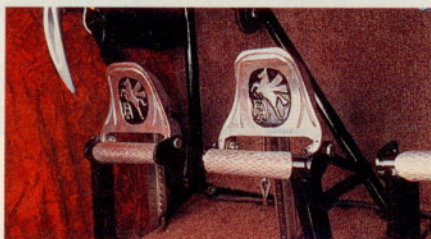
The instrument panel is pentagonal in shape, and only partially occupied by gauges and a glove box. Its curved upper section flows gracefully into the shape of the round engine ahead. The throttle is in the center of the panel and, thoughtfully, a control stick—rather than a space-wasting wheel—is provided for each person up front. The surprisingly smooth response one gets from moving the stick is a further hint that the beauty of this airplane lies beneath the skin. The elevator and most of the aileron mechanisms consist of push-pull tubes. Only the rudder is actuated purely by cables. The seats seem to be designed to spoil the pilot and passengers, for not only do they feel as if they belong in a luxury car, but they position one to reach the controls almost effortlessly.

Originally, the Warner had spark advance but such wondrous devices were removed from most old airplanes many owners ago. A spark-advance mechanism adjusts the timing of the spark for better ignition at low engine rpm; the spark fires several degrees before the pistons reach the top dead-center (TDC) position. Starting now involves turning on one or both of the Off/On fuel selectors on either side of the cabin to allow feeding from their respective tanks; exercising the primer six times; engaging the starter with the mags off until a half-dozen or so blades go by; and then snapping on the mags. If all is well, the Warner lights off, and its pleasant, loping sound reminds anyone nearby of what many consider to be the sound of a *real* aircraft engine.

Taxiing a Fairchild 24 is easier than taxiing most tailwheel airplanes. The brakes are rarely needed, which is good because they are Hayes brakes of the expander-tube block sort, and require elephantine pressure of the toe brakes to accomplish much of anything. Visibility over the nose is certainly not what



Cruise power in the Fairchild is about 1,800 rpm. Landing gear and details such as Hayes brakes distinguish the aircraft.



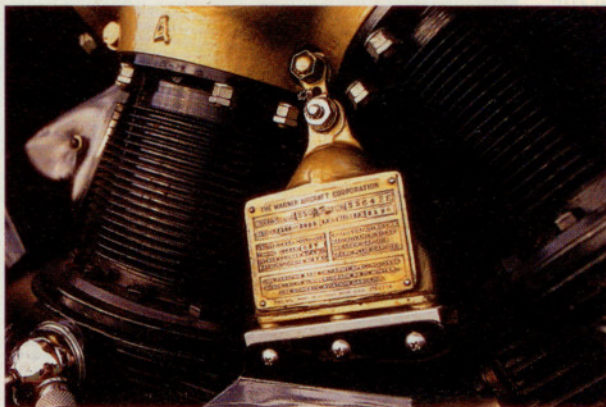
one gets in a trigeared airplane, but it is much better than most radial-equipped machines. The ride as the airplane saunters over the grass is another indication that this is not a plain-vanilla airplane. It rides extremely smooth, abetted by a landing gear with six inches of vertical travel to its spring-oil struts.

Once the engine has warmed and the brief pretakeoff check completed, it is time to explore how this small island of luxury behaves.

As the power comes up and the sound of the 145-hp Warner swells grandly, the Fairchild eases down the runway with nary a dart nor swerve. It tracks straight ahead as it accelerates sedately. A 24 is not going to snap one's head back, nor is it going to lie in wait for the unwary pilot so it can zip off to the ditch. This is yachting, not thrashing about on a plebian jet ski. It gains its modest speed without fuss and rises into the air gracefully at about 55 miles per hour. Yes, miles; aviation was not to regularly think in terms of knots until many years after this airplane left the factory.

Best-rate-of-climb speed is 70 mph

and will usually result in ascending at about 750 fpm or so. The controls are nicely harmonized and a good compromise between overly responsive and solid. One must definitely apply pressure to the stick to cause the airplane to



change direction, but it does so with almost velvety smoothness.

Cruise power is about 1,800 rpm. It is not quiet in the cabin, but the seven cylinders of the Warner make for a smoothness not often felt in more modern airplanes. Once settled down, the Fairchild 24 moves stately across the verdant fields of Iowa's carefully rowed corn and beans at about 105 to 110 mph, taking those riding with

Tom Burmeister back to a time of hand-crafted airplanes and dignified travel. If ever there were a harmony of an airplane and the land over which it so regularly flies, this is it. Both seem to take the turbulence of weather and the passing years with equanimity, for both have seen airplanes and fads come and go, and both persevere.

With thanks to the large vertical stabilizer, the Fairchild is well-mannered in turbulence or turns; the ball stays in the center of the race without heroics on the part of the pilot. Rolling into steep turns is almost oily, even though the control force needed is noticeable. Cadillacs are not sports cars. The airplane does slow down once established in a prolonged steep bank, then stabilizes and seems willing to make circles as long as its pilot desires.

Slow flight is without trickery; the Fairchild will remain comfortably at its trimmed airspeed. Stalls are honest, straight-ahead nonevents. Just relaxing back-pressure a little restores controlled flight.

A cross-country flight in a Fairchild 24—as with a stroll with good friends—

Flight in a Fairchild is to be savored—like an evening stroll with old friends.




is to be savored, not hurried. The smoothness of the engine, the solid control response, and comfort of the cabin call for one to shift mental gears and enjoy the journey rather than race to the destination.

When it is finally time for landing, the pattern is entered at cruise so as to mix with the more rapid birds. Speed is eventually reduced to about 80 mph or a bit less on final approach. If you are flying one of the rare "deluxe" models having flaps, the approach may be flown a bit slower. Once the throttle is closed and the roundout to landing completed, it is not unusual to have difficulty determining exactly when the airplane touches the ground. The long-travel landing gear may start rolling and compressing well before the airplane's occupants realize the landing has actually occurred. In keeping with the age of this pelican, grass runways are preferred, particularly because the landing gear must spread outward as it compresses, something that is difficult to do smoothly on concrete.

Directional control on rollout is easily maintained because of the large tail and wide gear tread. In a crosswind, appropriate aileron use is most helpful, particularly because of the lethargic brakes. As an 18-year-old private pilot with 50 hours of flying time, Burmeister said he became comfortable in the airplane in about five hours of flying.

Fairchild 24s currently change hands for somewhere between \$30,000 and \$40,000, although some immaculate restorations have gone for more than twice the higher sum. The airplanes are becoming increasingly rare, with fewer than 400 currently registered. The Fairchild Club has a good reputation for technical help and locating parts; it is headed by John Berendt, telephone 507/263-2414, or visit the Web site (<http://homepage2.rconnect.com/mjbfchld>).

It is difficult to leave the world that Burmeister has created for his airplane and his family in rural Iowa. His Fairchild 24 and its home are so much alike; neither have spectacular vistas that draw enthusiastic hordes. Rather, their attractiveness lies below the surface. Both are deeply satisfying, reliable, and altogether sensible. □

 *Links to additional information on the Fairchild 24 may be found on AOPA Online (www.aopa.org/pilot/links.shtml). Rick Durden is an aviation attorney and writer living in Grand Rapids, Michigan.*