

JURASSIC LARK

Lingering dinosaurs
still flying

BY DAN NAMOWITZ

Remember the look on the faces of the scientists in the movie *Jurassic Park*, in the famous scene where they—and the audience—get their first look at a live dinosaur? The same kind of response can be seen on the faces of pilots beholding a species of airplane almost as extinct, but at one time destined to undergo a similar revival: the high-winged Aero Commander singles known as the Darter and the Lark. ■ With squared-off lines and huge, clunky wheelpants suggesting a mutated Cessna—and, in the case of the Darter, a turned-around tail suggesting the presence of some DNA from a Mooney—a few of these odd aviation clones can still be found flying. They generate curiosity, if not downright fascination, for it seems that while most pilots know that these airplanes once existed, they never expected to see one in person. ■ What led to the near extinction of these odd birds? A huge meteor striking the earth and blotting out the sun? Global warming? Neither explanation will do. More likely, the benign indifference of pilots was the problem, an indifference never negated by manufacturers' attempts to market these tame, docile, and friendly aircraft.

PHOTOGRAPHY BY MICHAEL P. COLLINS



THOUGH BIGGER AND TOUGHER THAN 172s, DARTERS UNDERPERFORMED THE POPULAR AIRPLANES FROM WICHITA.

That indifference was not without reason. Though bigger and tougher than Cessna 172s, Darters underperformed the popular airplanes from Wichita in cruise, burned more fuel, and used more runway on takeoff and landing. Even the more powerful Lark had a service ceiling of only 11,200 feet, compared to a 1968 Cessna 172's 13,100 feet.

The general history of the species can be related briefly. In 1965, Volairecraft, a company based in Aliquippa, Pennsylvania, had brought into the market a newly certified design for a fixed-gear, 150-horsepower, four-place airplane. The design was purchased by the Aero Commander division of North American Rockwell, which in 1968 renamed the aircraft the AC-100-150 Darter. A month later the company rolled out the 180-horsepower Lark, powered by a Lycoming O-360-A2F engine, under the overall marketing plan of naming its 1968 aircraft models after "tough birds," from which emerged such familiar names as the twin-engine Shrike Commander.

In that year you could buy a new



Darter for \$8,900, and the strategy was to compete with the name-brand alternatives by proclaiming the new offering as "the lowest priced, all-metal single-engine aircraft on the market." Some 360 Darters were manufactured before the line was discontinued later that same year. The Lark, with its 180-hp engine, higher gross weight, and beefier design—some Piper DNA here, perhaps?—continued to roll off the production line until 1971, with a total of 213 being built before Rockwell gave

The fin on the Lark's nose-gear fairing adds a distinctive aerodynamic touch, but the airplane's panel is utilitarian.

up on the idea of breaking into the fixed-gear, fixed-pitch, four-place single market. About 350 Larks and Darters are still actively flown in the United States, with a handful registered in other countries.

One of these airplanes is a 1969 Lark owned by Peter Anderson of Bangor, Maine. When Anderson began flying his airplane in late 1994, it marked a return to aviation for both the man and the machine. Anderson, 58, had earned commercial, multiengine, and float-flying credentials almost two decades earlier but had been forced to put flying aside while running his law office and raising children. During much of the same period, the airplane in which he was destined to make his comeback was also languishing, in a state of almost pathetic disrepair, in a far corner of a small Maine airfield.

Acquiring the airplane in lieu of a legal fee, and faced with a lengthy restoration to airworthiness, Anderson began polishing his rusty skills in a rented Cessna 172, flying occasional cross-



countries, to look in on the job at the airport where the Commander was undergoing repairs. Usually these reconnaissance flights would occur early on crisp New England mornings when the shop was still closed and the best he could do was to peer in the hangar window at his bird, now uncowed, propless, and stripped to bare metal. I would sympathetically watch the little drama play out, after which we would walk back to the Skyhawk through the dew-covered grass and continue practicing for the day when the lawyer and the Lark would be united at last.

Considering the aircraft's odd combination of traits, I wondered how a pilot who had come to own one by sheer chance, in the same manner I had acquired my most recent stray cat, would like the Lark; but it turns out that the man and machine are well-matched. Though instrument-rated, Anderson describes himself as a hard-VFR kind of pilot, flying for fun and the occasional long VFR cross-country. He had N4009X painted an attention-grabbing yellow-on-red—not to make it a standout on the tiedown line, although it is, but because “I wanted colors that would stand out against a background of woods or a background of snow.” Anderson explains this with the same characteristic dry sense of humor that prompted him to give a real-estate company he formed the name White Knuckle Airways, Inc. Anderson holds the dual titles of president and chief pilot of the corporation.

The sense of humor comes in handy on those frequent occasions when Cessna/Commander clone confusion crops up. Taxiing out for a recent proficiency flight, we conducted the following exchange with an air traffic controller:

“Good afternoon, Ground. Aero Commander Lark November-Four-Zero-Zero-Nine-Xray is at general aviation with information Alpha, VFR northbound, ready to taxi.”

“Commander November-Four-Zero-Zero-Nine-Xray, taxi to Runway 33, squawk 0270, and I don't have you in sight, sir; give way to the red Skyhawk exiting the ramp.”

“Er, Ground, Zero-Nine-Xray *is* the red Skyhawk. We're a single-engine Lark Commander.”

“Oh, OK, Zero-Nine-Xray, disregard the hold short, taxi to the runway...and, now that you mention it, I've never seen landing gear like that on a Cessna.”

Just to hammer home the point that you are *different*, you switch over to Tower, and the aircraft taxiing behind



Peter Anderson's Lark is shown as it appeared when he acquired the airplane (above) and following an extensive restoration (top and right).

you declares, "Tower, Learjet Five-Six-Mike-Mike is ready to go in sequence behind the Skyhawk." Such is life for owners of the Lark.

Despite its image problems, the Aero Commander people built a fun, comfortable ship. A big bird when matched up against—well, other high-winged, strut-braced singles—the Lark stands more than a foot taller at the top of its tail fin than a you-know-what of comparable vintage. The blunt nose, bulky landing gear reminiscent of a trio of drop-tanks, and untapered wing project a dramatic profile, enhanced—some say aggravated—by the little rudder-like protrusion on the trailing edge of the gigantic nosewheel fairing. Inside, once you circumnavigate that most amazing main-gear wheelpant that conceals the main gear and its unusual fiberglass shock-absorbing springs, you sit for a moment and wish you had brought your camera along for the ride. The gen-

erous visibility over the low panel is unmistakably non-Cessna, and the side windows are cut into the wide cabin doors right down to your elbows.

On the flight deck, any veteran single-engine pilot adding an AC-100-180 to his logbook will feel at home. Instrument arrangement is standard; the radio stack is located in mid-panel, and a huge map compartment occupies a significant portion of the upper right side of the panel. The tachometer is located in the upper left corner—difficult to read from the right seat—and a trio of warning lights for electrical systems, resembling gear-down lights on a retractable aircraft, are located just left of the pilot's yoke. Beneath them are the



master and electric fuel pump switches. The pump is required to be on for take-offs and landings, to keep the fuel flowing from the two 20-usable-gallon tanks in the event of engine-driven pump failure. Directly above the yoke are engine



instruments and fuel gauges. At bottom center on the panel, you will find a plunger-style primer, carburetor heat control, throttle (with its huge knob on the end of the shaft), mixture control, and parking brake handle. Circuit breakers surround the right-seat yoke.

The elevator trim wheel and the manual flap handle are located between the front seats. The mechanical flaps deploy 10 degrees with each notch of extension, to 30 degrees. Return springs aid retraction to the full-up position. Larks with serial numbers from 5001 to 5100 lacked toe brakes on the copilot's side. Fortunately for me, the serial number on Anderson's airplane is 5109.

Once you remind yourself that gravity flow does not preclude the use of an electric fuel pump, there is nothing unconventional about startup, taxi, or flight operations, except that the aircraft's legendary stiffness while taxiing is a great workout for the feet. Cleared for takeoff by a controller who was having difficulty not using the C word, Anderson advanced the throttle, rotated at 70 miles per hour on the dated airspeed indicator, and became airborne after a roll of about 900 feet on this early spring day with light wind and an almost standard temperature and pressure. Through 2,500 feet, an 85-mph indicated airspeed yielded a 550-foot per minute rate of climb with the aircraft loaded to within 250 pounds of its 2,450-pound maximum gross weight, which offers a useful load of some 900 pounds. That performance approximat-

ed the figure promised by the pilot's operating handbook at max gross. At 3,000 feet, level cruise at 2,400 rpm yielded 73-percent power and a true airspeed of 122 mph (106 knots); according to the book, the four-cylinder Lycoming O-360-A2F was burning 10.3 gallons per hour, for an endurance of just under 3.5 hours with reserves.

The airplane is very stable in cruise and has the feel, if not the performance, of a bigger, heavier single. The low-lift rectangular wing can surprise Cessna-trained pilots who have learned to

squeeze all the airspeed out of the airfoil to avoid float in ground effect. The first hint that thou shalt not do this in a Lark may be found during the slow-flight drill at altitude, when the stall light begins flickering in the high sixties. (Stall in the landing configuration is listed as 63 mph, with position error listed as 2 mph.)

Coordination of right turns at slow speed takes gobs of right rudder because the 180-hp engine's torque teams up with the deflected left aileron to yaw the aircraft strongly outside the turn. The power-off stall was tame enough, if

slightly abrupt, and without the mushing, semi-stalled wallowing often postulated by a Cessna 172. Unlike the Skyhawk, the Lark is not approved for spins and must be operated only in the normal category. The entire subject of spins warrants only one sentence in the old-style operating handbook: "If a spin is encountered, immediately retract the wing flaps, retard throttle, and execute standard NACA recovery techniques." The NACA technique, as published by the Civil Aeronautics Administration in 1958, calls for neutralizing the aileron, applying full rudder against the spin, and—after at least half a turn—briskly moving the elevator to a full down position.

Remembering the airplane's slow-speed characteristics, we joined the pattern at a nearby uncontrolled airport. Keeping the airspeed comfortably between 70 and 80 mph with just a touch of power until encountering ground effect avoided any tendency to stall high and drop it in. Trimming is important with each configuration change. The next challenge was to control the rollout with that stiffer-than-normal landing gear—but here again, knowing the airplane and anticipating the requirements keeps everything civilized. On the return to the home airport, an unexpected go-around commanded by the tower provided reassurance that the transition from power-off, full-flap approach to a flaps-up climb is no big deal if properly executed, which means slowly retracting the flaps to avoid sink. In this situation, manual flaps are a blessing indeed, because they help manage the mediocre climb.

Despite the limited-edition nature of the AC-100 line, current owners have good support for their maintenance needs. J&C Enterprises Aviation Incorporated of Weatherford, Oklahoma, provides replacement parts and has begun offering interior plastic parts. "We have all the parts in the world that were left for that airplane," says Jerry Buster of J&C, adding that nose gear parts are hardest to come by today. He cautions prospective owners of a Lark or Darter to inspect the airframe carefully for dissimilar-metals corrosion caused by contact between steel and aluminum components of the airframe and nosewheel assembly. Buster says that buyers appreciate the solid feel and stability of the airplanes, and he still runs across "a lot of older pilots who bought them brand-new." Good examples typically sport total times of about

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IS THE LARK NOW POISED TO EMERGE FROM THE LABORATORY OF SOME NEW EVOLUTIONARY TINKERER?

1,400 hours and on the resale market fetch about \$12,000 to \$16,000 for a Darter and \$14,000 to \$22,000 for a Lark.

Has evolution of these airplanes run up a blind alley? Not quite yet. Ironically, perhaps, the Lark Commander itself has now been cloned, and the presence of some DNA from an airplane that would seem to have nothing in common can now be detected: the Aviat A-1 Husky bushplane, a taildragger designed for short-field performance (and itself cloned from the popular, and endangered, Piper Super Cub). This unlikely union arose from the passage of the AC-100-180 type certificate into the hands of Christen Industries, original manufacturer of the Husky and other well-known aircraft such as the Pitts Special and Christen Eagle aerobatic aircraft, with a view toward re-engineering the Lark and reintroducing it onto the market. A prototype was built, recalls Christen's former chairman, Frank Christensen, and it "dramatically improved the performance" of the Lark. This was accomplished by borrowing the Husky's 180-horsepower engine and constant-speed prop, adding a cuffed leading edge to the wing, redesigning the ailerons and flaps, and modifying the Lark's clunky landing gear. The result was an airplane with better roll rate, improved rate of climb, and faster cruise, in all cases "better than a 172," Christensen recalls.

Then evolution took an unexpected turn. Dynac International, a partnership of four German entrepreneurs and investors, made a bid to buy Christen, but at the moment the deal was to conclude, Dynac's principals failed to show up with the check. Christen was subsequently acquired by Aviat, the current manufacturer of Huskies and the aerobatic aircraft. Aviat has no interest in developing the Lark; but until recently the company found itself to be the custodian of two Larks and all the tooling and drawings for the revamped AC-100-180, while Aviat waited out what former Aviat chief executive Malcolm White described as a "legal mess" brewing between the Dynac principals. Late in December 1995, after coming to an agreement with Aviat over expenses that had been incurred during the long peri-

od of the Lark's dormancy, Dynac came to Wyoming and removed the Lark paperwork, one of the airframes, and the rest of their property from the Aviat premises.

Does that mean that the Lark is now poised to emerge from the laboratory of

some new evolutionary tinkerer? The irony of it is that things are finally beginning to happen at a time when the Skyhawk, the very bird that drove Larks and Darters from our skies, is itself making a comeback. Indeed, nature moves in mysterious ways. □

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