



TURNING AROUND TAYLORCRAFT

A classic once again flies from Lock Haven.

BY THOMAS B. HAINES

You can buy a Chrysler, Dodge, Plymouth, and Nissan all under the same roof, so why can't you shop for airplanes the same way? If Darus H. Zehrbach, Jr., is successful, you may be able to buy a Taylorcraft, Meyers, and Helio at one dealer. Zehrbach, entrepreneur and president of Taylorcraft Aircraft Corporation, enthusiastically outlines his plans for such a

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The Taylorcraft has been given many improvements over the years, such as wider doors and flaps (bottom), but the manufacturing process is just like the old days: wooden spars, aluminum ribs, and lots of careful handwork.



diverse association of aircraft companies. He is dusting off the tooling at Taylorcraft's Lock Haven, Pennsylvania, plant as he goes about trying to acquire type certificates or manufacturing rights for other aircraft no longer in production.

He already owns the Helio. He is in negotiations for the rights to the Meyers 200 and to the SAH-1, a British-designed, low-wing, 118- to 160-horsepower training aircraft. He has talked of buying the high-wing Aero Commander Darter and Lark line. His goal is to produce a variety of aircraft models that serve all types of general aviation from sport and training to business and utility markets.

When it comes to fun flying, though, few of the others can match the versatile Taylorcraft. Whether you feel like float-plane flying, launching from a grass strip, or strapping on skis for some winter flying, the Taylorcraft will always be at home. The improvements made to recent models of Taylorcrafts add creature comforts and cross-country capability to an already proven design. But there still is much work to be done in order to revive the once bankrupt company.

Zehrbach's first challenge is to secure financing to rebuild Taylorcraft. He formed Aircraft Acquisition Corporation (AAC) in Morgantown, West Virginia, to buy Taylorcraft from the bankruptcy courts last December, for a price of \$165,000. He has spent additional money to renovate the production facility, the same building that poured out thousands of Cubs until Piper Aircraft Corporation moved out of Lock Haven in 1984. Zehrbach says he has right of first refusal on about 500,000 square feet of space at the behemoth plant. Currently, he is renting about 55,000 square feet.

Zehrbach holds an MBA from West Virginia University and has worked in marketing for a number of large corporations. He now owns an oil and gas company and contract engineering firm in West Virginia. He is not a pilot.

Working the production line at Taylorcraft are about 25 employees. Many of them are the same ones laid off when Piper left town and, more recently, when the courts forced Taylorcraft to liquidate its assets under Chapter 7 bankruptcy laws. The previous owner, George A. Ruckle, bought the financially ailing company in 1985 when it was located in Alliance, Ohio. He moved the manufacturing to the abandoned Piper plant to take advantage of the trained work force in Lock Haven. Ruckle delivered a number of aircraft, but financial and legal dilemmas forced him into Chapter 11 bankruptcy in late 1986, despite his enthusiasm. He was unable to recover, and the courts ordered the company liquidated in mid-1989.

Zehrbach is aware of Ruckle's difficulties, but he believes much of the previous owner's plan to expand the model line, minimize overhead, hire the trained Lock Haven work force, and diversify is valid. With only a small amount invested in the company, Zehrbach is able to keep the overhead to a minimum. As part of an economic development program, the Commonwealth of Pennsylvania is assisting the company by providing 75 percent of the wage for employees who are military veterans and 50 percent of the wage for nonveterans for six months after hire. As a result, Zehrbach can offer a Taylorcraft F22 for about \$43,000, nearly \$10,000 less than a Piper Super Cub. As the financial assistance runs out, prices will go up, according to Zehrbach. It should be noted that Ruckle, too, had such financial help.

Zehrbach says he has been relieved of one problem faced by Ruckle—a 55-year liability tail. Because Taylorcraft was bankrupt when Zehrbach bought it, the judge ruled that any liability for the 2,700 Taylorcrafts already in existence died with the





Taylorcraft officials say customers like the simple things about the airplane, such as sight fuel gauges and the hand crank for the trim system (left). The roomy panel, though, can be dressed up or down to suit the customer's needs. The Classic 118 demonstrator includes most of the basic instruments, but no vertical speed indicator or directional gyro.



old company, according to Zehrbach. The new company will be responsible only for the aircraft it produces.

And production is under way. Already, the workers have completed what is being called a Classic 118. The official designation is F22. Certification for that improved model of the earlier F21B was received just before bankruptcy was declared. None was ever delivered. The conventional-gear Classic 118 is powered by a 118-horsepower Textron Lycoming engine. Soon to be certified, says Zehrbach, is the 180 GT, which is a tricycle-gear version of the F22 powered by a 180-hp Lycoming O-360. Zehrbach plans a number of engine variants for each model and also is working on a clipped-wing, 180-hp version that will be certified for aerobatics.

The F22 differs from the earlier F21 in a number of ways. Most noticeable is the easier access to the two side-by-side seats and the wider cockpit. The welded steel airframe was modified slightly to make the doors larger and to increase the cabin width by about 5 inches. The baggage area, located behind the seats and now capable of carrying 200 pounds, has easier access because of the redesign.

Also setting the F22 apart are wing flaps and adjustable seats. Earlier Taylorcrafts had no flaps and only canvas sling seats. Another change is an improved elevator trim system. Customers may choose a ceiling-mounted crank trim control or a more modern floor-mounted trim wheel.

An all-metal panel and improved external and internal lighting systems are just some of the smaller changes intended to update the aircraft.

Each new Taylorcraft comes standard with an intercom,

communications radio, and Mode C transponder with encoder. From there, Zehrbach says, the customer can choose any type of avionics and accessories he wants.

Zehrbach believes the versatility of the Taylorcraft airframe is the key to the company's survival. The gross weight of the F21B is 1,750 pounds. However, stress analysis has shown that the two spruce wing spars easily will handle more than 2,300 pounds. He already has applied to the Federal Aviation Administration to increase the gross weight of new aircraft to 2,100 pounds. He also plans to switch to spars made of fir, which is stronger and cheaper than spruce.

Zehrbach says he has about 11 firm orders for aircraft, and he is busy talking with potential customers every day. Representatives from the University of North Dakota's flight school recently visited the Taylorcraft marketing office in Morgantown to discuss the purchase of several tailwheel aircraft to use as trainers. Other schools have shown an interest in training their students in taildraggers and in using the Taylorcrafts as aerobatic trainers, Zehrbach says.

A number of factors combine to make the Classic 118 an excellent primary trainer. Because the wings are long, adverse yaw is plentiful, and the rudder is powerful, the Taylorcraft demands good control coordination. The airplane, though, is forgiving and allows the student to learn basic stick-and-rudder skills in a relatively short time. Many instructors like the side-by-side cockpit and dual yokes better than the tandem seating and control sticks of some other tailwheel trainers. Taildraggers by definition, though, are harder to taxi because of the poor visibility over the nose. And the landing gear on



the Classic 118 poses the same challenges during takeoff and landing as those of all tailwheel aircraft: The back wants to swap ends with the front just as you touch down or are about to take off. Again, good control coordination is a must.

On a flight with Fred C. Burlingame, Jr., Taylorcraft's general manager, the 118, as might be expected, exhibited relatively docile stall characteristics. The stall break is quick, but recovery is conventional, with altitude lost in only tens of feet. The rudder is large, very effective, and demanding of attention if you want to make every turn precisely.

With the two of us on board and a full 40 gallons of fuel, the airplane was about 100 pounds shy of its useful load of 710

pounds. At 75-percent power, the airplane cruised at about 100 knots true airspeed while burning about 6.6 gallons per hour. The 180 GT, meanwhile, produced about 112 knots TAS under similar conditions and burned about 9.8 gph.

Despite the steel bars crisscrossing the windshield, visibility from the cockpit is good. The overhead skylight provides excellent visibility in steep turns.

The pilot pays the price for all that glass around him in the form of a noisy cockpit. An intercom as standard equipment is a wise move on the part of Taylorcraft, though Zehrbach says a tuned exhaust system being tested drastically reduces noise inside and outside the airplane.

N2202T, the 118 we flew, is actually the second F22, according to Burlingame. The number-one airplane is N180GT, which has been converted to the 180-hp, tricycle-gear demonstrator. A number of subtle, yet needed, changes will be applied to subsequent aircraft. Actuating the flaps requires Arnold Schwarzenegger-like strength. The pilot's pulling and grunting on the handle are sure to result in altitude excursions on short final. A fix is in the works, Burlingame says.

In addition, the trim system on the 180 GT is actuated by a wheel on the floor between the seats. The wheel is too small to easily grasp, and it is tucked





nearly underneath the burly flap handle. That too is being redesigned and improved.

As a pilot weaned on aircraft with the third wheel out front, I find most tailwheeled aircraft an arm- and foot-full on the ground and on landings. The Classic 118 is no worse than the rest and better than some I've flown.

The 180 GT, on the other hand, I found to be a breeze on and just above the runway. Taylorcraft is marketing this airplane as a STOL vehicle. Hold the brakes, pull the yoke back, and shove in the throttle. It leaps off the pavement in what looks to be about 350 feet, though official numbers aren't yet available. Burlingame suggested a maximum-performance climb at 52 knots. The result was no visibility over the nose but an impressive 1,300-fpm climb. We were more than 500 feet agl before passing the end of Lock Haven's 3,350-foot Runway 27. Landing the 180 GT was easy and quick with the aid of the large flaps.

Sensenich Propeller Company is importing a three-blade, constant-speed propeller from Germany that soon will be fitted to the 180 GT. The fully reversible prop will further enhance the airplane's runway and climb performance, Zehrbach says.

Taylorcraft already is marketing a Ranger Patrol version of the F22 for law enforcement, forestry service, pipeline patrol, wildlife management, and other special utility jobs. The aircraft can be equipped with Kevlar armor and a quieter exhaust system for special police missions. The company also plans to seek certification of the 180 on floats.

Taylorcrafts are sport aircraft with bush and utility applications, according to Zehrbach.

He sees the largest market in the Utility category with a secondary market in sport aircraft buyers. Interestingly, he predicts sales of tailwheel aircraft will make up only about 5 to 10 percent of the market. If he's right, the Taylorcraft will have turned the corner from the image of the old low and slow taildragger to one of a modern tricycle-gear utility airplane.

As for prices, a well-equipped IFR 180 GT lists for about \$70,000. A more basic tricycle 180 will sell for \$55,975. The conventional-gear version is \$2,000 less.

The tricycle-gear 118 is \$45,975, and the tailwheel version is \$42,975. Zehrbach says the type certificate for the tricycle-gear aircraft will be in hand in early August, though a number of tests and a lot paperwork still must be completed. Orders are being taken for the taildragger versions, and delivery can be made in 90 days, according to the owner.

Besides new aircraft, the company is producing parts for existing airplanes, and it plans to open a refurbishment center where many of the upgrades for the new airplanes can be applied to existing Taylorcrafts. The center also will provide new fabric covering and paint for existing aircraft.

In addition, Zehrbach has big plans for the Helio and any other type certificates he may acquire. He is making plans to begin production of Helios at the Greene County Airport in Waynesburg, Pennsylvania, near Pittsburgh. He admits financing is the stumbling block preventing him from starting Helio production and from acquiring type certificates and beginning production of the other aircraft. Few investors seem interested in the general aviation industry, he says.

After only six months of shopping around for investors,



Put the tailwheel out front, trade the 118 hp for 180, spruce up the interior with leather, deck out the panel, and you've transformed the Classic 118 into the 180 GT.

Zehrbach is not discouraged. His specialty, he says, is buying in at the bottom of cyclical industries and turning companies around as the markets rebound. General aviation markets are on the rebound, he is convinced, but he admits to having fallen in love with general aviation more than any of the other industries he's worked in. Once financing for his companies is assured, a pilot certificate will be his next goal. □

Taylorcraft Classic 118

Base price: \$42,975

Specifications

Powerplant	Lycoming O-235-L2C 118 hp at 2,700 rpm; 112 hp at 2,600 continuous
Recommended TBO	2,000 hr
Propeller	Sensenich, two-blade, 72-in diameter
Length	22.23 ft
Height	6.5 ft
Wingspan	36 ft
Wing area	183.7 sq ft
Wing loading	9.53 lb/sq ft
Power loading	14.8 lb/hp
Seats	2
Cabin length	7.83 ft
Cabin width	3.83 ft
Cabin height	3.83 ft
Empty weight	1,040 lb
Gross weight, normal	1,750 lb
Gross weight, utility	1,380 lb
Useful load	710 lb
Payload w/full fuel	470 lb
Max takeoff weight	1,750 lb
Max landing weight	1,750 lb
Fuel capacity, std	40 gal usable 240 lb usable
Fuel capacity, w/opt tanks	78 gal usable 468 lb usable
Oil capacity	6 qt
Baggage capacity	200 lb

Performance

Takeoff distance, ground roll	500 ft
Takeoff distance over 50-ft obstacle	792 ft
Rate of climb, sea level	750 fpm
Max level speed, sea level	109 kt
Cruise speed/endurance w/45-min rsv, std fuel (fuel consumption)	
@ 75% power, best economy	100 kt/6.06 hr
7,000 ft	(39.6 pph/6.6 gph)
Service ceiling	18,000 ft
Absolute ceiling	20,753 ft
Landing distance over 50-ft obstacle	572 ft
Landing distance, ground roll	350 ft

Limiting and Recommended Airspeeds

V _x (best angle of climb)	49 KIAS
V _y (best rate of climb)	58 KIAS
V _a (design maneuvering)	89 KIAS
V _{fe} (max flap extended)	66 KIAS
V _{no} (max structural cruising)	103 KIAS
V _{ne} (never exceed)	128 KIAS
V _{s1} (stall, clean)	42 KIAS
V _{so} (stall, in landing configuration)	37 KIAS

All specifications are based on manufacturer's calculations. All performance figures are based on standard day, standard atmosphere, sea level, gross weight conditions unless otherwise noted. For more information, contact Taylorcraft Aircraft Corporation, 165 Scott Avenue, Suite 102, Post Office Drawer 3350, Morgantown, West Virginia 26505; telephone 304/291-3843. □