

TAYLORCRAFT IN TRANSITION

Production of the lowest-cost single
gets a shot in the arm,
thanks to one man's enthusiasm.

BY THOMAS A. HORNE

IF the lightplane industry has fallen flat on its face, no one seems to have told George A. Ruckle about it. Last summer, Ruckle bought the ailing Taylorcraft Corporation, took over the William T. Piper Memorial Airport, formed Lock Haven Industrial Properties, then moved all the tooling, jigs and inventory from Taylorcraft's former home in Alliance, Ohio, to the deserted Piper factory in Lock Haven, Pennsylvania. The purpose: to invigorate sales of the Taylorcraft, and to revivify Lock Haven as a center of lightplane and other manufacturing activity.

One cannot tell this story without delving into Ruckle's background. He made his fortune as an executive with the Roto-American Corporation, best known for their manufacture of "baggies" and other sealed plastic containers. He also founded Vanguard Plastics, one of the first companies to manufacture plastic bottles. In 1970, he retired to his home near Lock Haven.

When the Piper Aircraft Corporation packed up and left Lock Haven in August 1984, Ruckle became concerned. Unemployment in Lock Haven shot up to 18 percent. Most Piper employees did not move to the company's locations in Lakeland and Vero Beach, Florida. The airport was vacant, yet another symbol of the declining productivity affecting the once-thriving industrial communities stretching from Illinois to Pennsylvania.

Meanwhile, Taylorcraft languished in Alliance, proud but inert. (For a more complete discussion of Taylorcraft's history in Alliance, see "Taylorcraft," August 1979 *Pilot*, p. 36, and "Taylorcraft Won't Quit," May 1982 *Pilot*, p. 59.) The vital signs of the rest of lightplane manufacturers became increasingly disturbing. Cessna stopped making light single-engine airplanes. Piper discontinued production of the Super Cub and Tomahawk and, most recently, terminated all

their singles, save the Malibu. Ercoupe, Meyers, Luscombe and Bellanca had been pronounced dead years ago. Bellanca's efforts to market the Champion series of fixed-gear singles ended in failure in 1980. Varga was a company in name only. Only Maule, Pitts and the Arctic Aircraft Company were still producing light, single-engine fixed-gear aircraft. Taylorcraft was propelled more by the sentiment and courage of its owner, Dorothy Feris, than by considerations of sound business practice.

Where others saw gloom and doom, Ruckle sensed an opportunity. Invest wisely, hire the right people, minimize overhead, diversify, cautiously introduce new products, and, while customers may not beat down the door, at least you can reach an acceptable break-even point. Knowing this, and armed with the unjaded enthusiasm of an outsider to the aviation business, Ruckle proceeded with his plan.

It is important to note that Ruckle has no aviation background. He is not a pilot. He only has a hunch that a market exists for low-cost lightplanes. Fed by his humanitarian concerns for the economic well-being of Lock Haven, his infectious yet unassuming ebullience and his financial resources, Ruckle is taking a calculated gamble. At 60, he is no longer a retiree.

He moved fast. On July 9, 1985 Ruckle closed the deal with Taylorcraft. By July 15 he was granted the type certificates to produce the F21. Shortly thereafter he received the type certificate to manufacture the F21B, a refined version of the F21 that has more standard features. On August 9, the first F21B rolled out of Ruckle's rejuvenated production line—through the same doors that disgorged thousands of Piper Cubs nearly a half-century ago. Fittingly, the first customer was Dorothy Feris.

Ruckle's plans do not end with the F21 and







Desolate Piper factory (top photo, taken in 1985) is now rejuvenated by George A. Ruckle (above) and a new generation of Taylorcrafts.



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WILLIAM A. FORD

F21B. Certification tests are now underway for a three-seat, tricycle-gear version of the Taylorcraft—the F22. This airplane will have a 150-hp Lycoming O-320 engine and manual flap system.

There is more. Ruckle has obtained the manufacturing rights to Edo floats, which his company will begin building in early May. An even more ambitious program involves the purchase of the long-dormant Varga line of lightplanes. Pending financial agreements, Ruckle should be able to manufacture Vargas under four different type certificates by the end of the year. (Varga currently holds type certificates for four different two-seat lightplanes: 150-hp and 180-hp models with either tricycle or conventional, tailwheel, landing gear.)

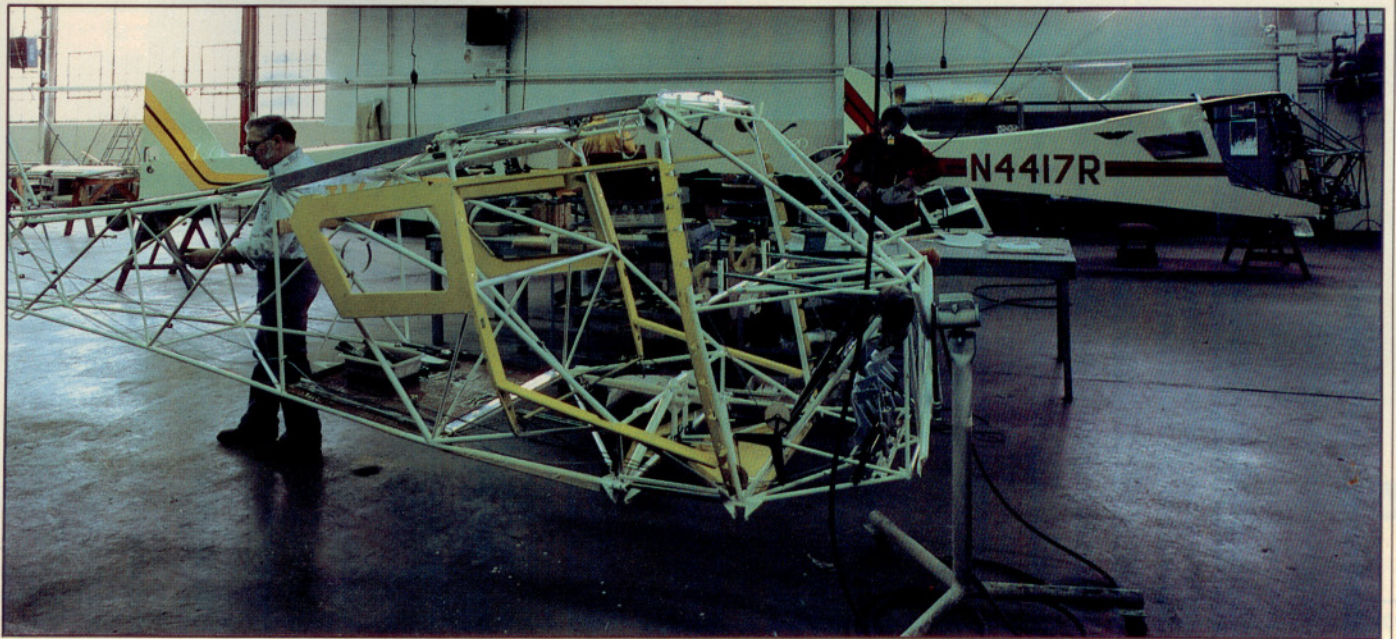
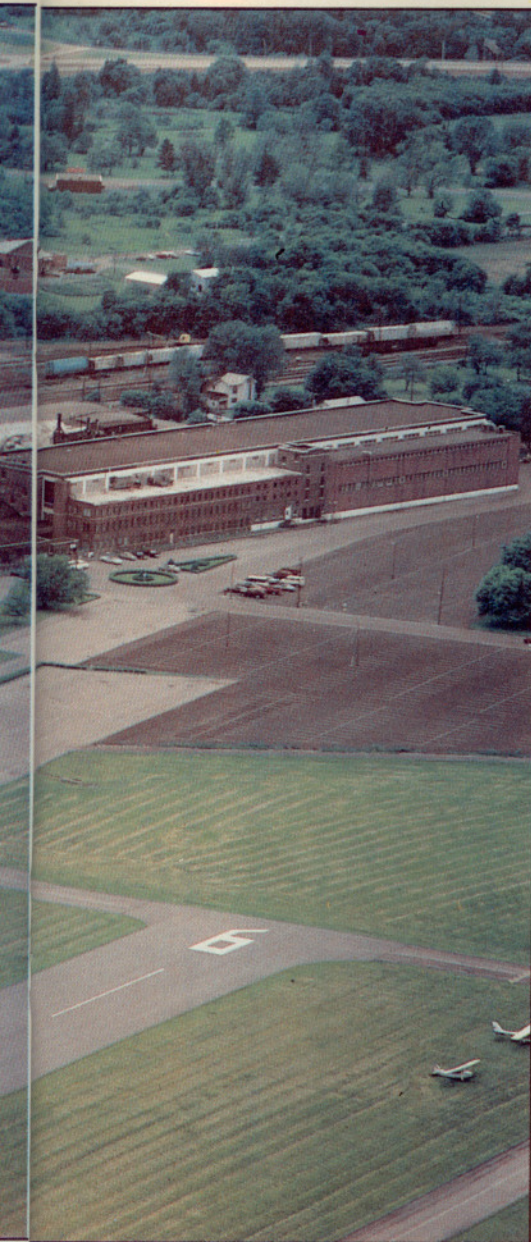
So far, Ruckle says he has spent "well over \$1 million" in setting up his small empire. He is so sanguine about his venture that he speaks of an employee profit-sharing plan in 1987. His 35 employees have an average of 25 years experience working with Piper. Several local, state and federal economic assistance programs have helped Ruckle finance his projects. One program run by the state of Pennsylvania provides wage subsidies for Taylorcraft's employees. (For more information about the economic revitalization of Lock Haven, see "Lock Haven Revival," September 1985 *Pilot*, p. 63.)

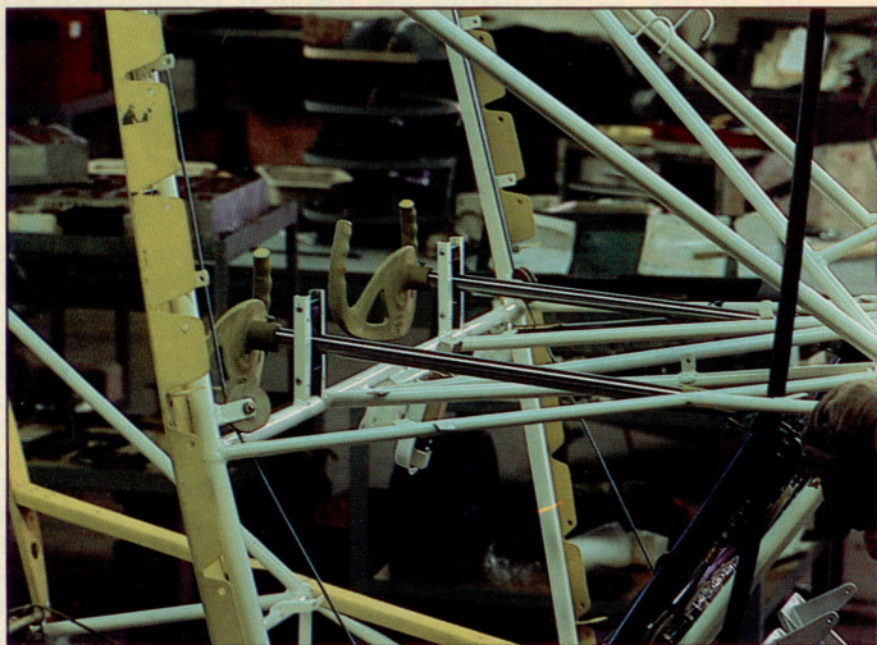
Ruckle's confidence springs from two major anticipated sources of demand. The first is the 120 flying clubs operated by the U.S. Armed Forces. These clubs

have 933 lightplanes in their inventory. Twenty percent of this fleet is replaced every year, in order to conform to a five-year renewal schedule. Ruckle figures that the F21s and F22 stand a good chance of filling the military's need. This spring, the military will make its choice after evaluation flights at Eglin Air Force Base in Pensacola, Florida.

The second opportunity is the Australian market. There, an aging fleet of Piper Super Cubs is rapidly heading for the boneyard. One western-Australian Piper dealer estimates that 150 ranchers could be prime prospects for the F21B. The Australian government's Forestry Division has a need to replace 20 of its beat-up Super Cubs, and 10 more lightplanes are needed for the Division's training center. The only snag with this deal is the Australian government's request for additional performance data. The first Taylorcraft shipped to Australia—due to be delivered this April—will be used to test the airplane's takeoff and landing performance on desert sand and long, wet jungle grass. If the Taylorcraft meets the necessary guidelines, Ruckle feels the deal will be in hand.

As for the American market, the new line of Taylorcrafts is positioned as the only alternative in a new, low-cost, two-seat training and utility aircraft. The bare-bones F21 has a base price of \$28,595. This model has no interior or exterior finish. The F21B comes with a paint job (your choice of red or blue on white, with a gray interior), a larger fuel capacity (42 gallons/40 usable versus





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the F21's 24 gallons/21 usable) and a base price of \$30,799. The F21B also has a huge, tinted overhead greenhouse canopy as standard equipment. Options for both models run the gamut, including Scott or Maule tailwheels, wheel pants, strobe and landing lights, a wide range of avionics, a vacuum system, and exhaust gas and cylinder head temperature gauges. The right door can be ordered with a clear plexiglass lower panel, useful in patrol operations and otherwise enhancing visibility. Skis and floats are available also.

Certification of the F22 is anticipated "before the end of the year" according to Ruckle. The price of this airplane, being billed as the replacement for the Super Cub, has yet to be announced.

There are still other irons in the fire. Once certification tests are finished, future Taylorcraft owners will be able to order one of two additional engine options: the 160-hp Lycoming O-320, or a new, 80-hp two-cylinder Lycoming engine capable of running on 80 octane aviation fuel.

What else? Ruckle says that if things go well he will bring back the Taylorcraft Ranch Wagon. The Ranch Wagon was a four-place design with a constant-speed propeller and a 225-hp Continental O-470 engine. It was a companion design to the Taylorcraft Topper, an agricultural sprayplane. These airplanes were produced for a short time in 1954 and 1955. Only 26 of these rarities were built, and today only nine exist in flying condition—most of them based in Alaska and Canada.

That is a big "if." Some of Taylorcraft's overhead is mitigated with the help of income derived from leases on Ruckle's airport properties. One tenant, Lock Haven Re-Man, occupies a large hangar on the north side of the field and has made a business of re-

F21B Taylorcraft		Oil capacity	6 qt
Base price: \$30,000		Baggage capacity	200 lb
Specifications			
Powerplant	Lycoming O-235 L2C, 118 hp @ 2,800 rpm (takeoff power limit of five minutes); 112 hp @ 2,600 rpm (max continuous)	Takeoff distance, ground roll	450 ft
Recommended TBO	2,000 hr	Takeoff distance over 50-ft obst	1,140 ft
Propeller	Sensenich 72 CK-O-50 fixed pitch; 72-in dia.	Rate of climb, sea level	750 fpm
Length	22 ft 2.75 in	Max level speed, sea level	109 kt
Height	6 ft 6 in	Cruise speed/Range w/30-min rsv, std fuel (fuel consumption, ea engine) @ 75% power, best economy	100 kt/636 nm (36 pph/6 gph)
Wingspan	36 ft	Service ceiling	18,000 ft
Wing area	183.71 sq ft	Landing distance, ground roll	500 ft
Wing loading	9.5 lb/sq ft	Limiting and Recommended Airspeeds	
Power loading	14.8 lb/hp	Vx (Best angle of climb)	52 KIAS
Seats	2	Vy (Best rate of climb)	69 KIAS
Cabin length	7 ft 10 in	Vno (Max structural cruising)	94 KIAS
Cabin width	3 ft	Vne (Never exceed)	118 KIAS
Cabin height	46 in	Vs1 (Stall clean)	42 KIAS
Empty weight	1,025 lb	<i>All specifications are based on manufacturer's calculations, pending final test results. All performance figures are based on standard day, standard atmosphere, at sea level and gross weight, unless otherwise noted.</i>	
Gross weight	1,750 lb		
Useful load	725 lb		
Payload w/full fuel	485 lb		
Fuel capacity, std	252 gal (240 gal usable) 42 gal (40 gal usable)		





manufacturing general aviation airplanes. Lock Haven Re-Man's president is Arnold H. Andresen, a former Piper sales executive. Ruckle is seeking other tenants for much of the office and manufacturing space left by Piper's void.

Two Pennsylvania men have been selected as the first divisional sales distributors for the reconstituted Taylorcraft company. Carl L. Williamson and Richard G. Hanna will be responsible for sales efforts in eight northeastern states. Both are looking forward to the challenge. "Contrary to adverse publicity, the aviation market is still out there," Williamson said "and we feel there is a market for low-cost airplanes." Time will tell if their many leads pay off.

Ruckle stands amid the quiet activity that attends the construction of wood-wing, tube-and-fabric airplanes. In dress and mannerisms, he seems a cross between a distracted professor and an old-fashioned straw boss. Moving his arm in a wide gesture toward his workers, he blurts, "a lot of people said it couldn't be done, but these guys here are the greatest. They make it work, and make it all worth it. You tell them to do something, and they do it.

"Right now we're building one a

week. The only thing holding us back is the delay in shipment of some materials. After we sell 100 airplanes we'll be at our break-even point. Then I can start working a second shift, and the brothers, uncles, fathers and friends of these guys will be able to work here."

There is something about this wonderfully simple, honest, efficient and old-fashioned airplane that elicits a peculiar type of strong personal commitment on the part of its company's owner. Dorothy Feris had it. So now does George Ruckle. And R. Terry Peeler and James B. Bitner, Piper veterans and Ruckle's right hand men. And Paul E. Everly, ex-Piper Designated Engineering Representative and Taylorcraft's test pilot.

I flew with Everly in Dorothy Feris's F21B. Butt on the seat, reach up and grab an overhead strut, then swing your feet in. Clip the seat belt and shoulder harnesses together, give it a shot of prime, pump the throttle and engage the starter. Check the magnetos and the carburetor heat, and the pre-takeoff check list is pretty much complete. At about 13 knots (the Taylorcraft's airspeed indicator is calibrated in miles per hour only) the rudder takes authority. Raise the tail

at about 26 knots, lift off at about 43 knots, then climb out at 70 knots.

Soon we were over the hills of the Pennsylvania landscape. Full throttle yielded 100 to 104 knots indicated airspeed—enough to catch up with our photo airplane. I was thankful for the greenhouse, which made it easier to keep the other airplane in sight and gave us a magnificent view during turns.

Apply carburetor heat, reduce power and descend into the pattern at Piper Memorial. Airspeed control is important on final approach, because at speeds higher than 52 knots the Taylorcraft will float, float, float in ground effect. No flaps, so we must slip to a landing, which is uneventful considering my lack of currency in Taylorcrafts. Taxi back to the ramp and shut down. There is the odor of new paint and upholstery, yet the design is straight from the 1930s. An odd contrast, and one that somehow heightens the sense of nostalgia.

The title of *Pilot's* last story on the Taylorcraft was "Taylorcraft Won't Quit." For a while, it seemed that events would make a mockery of that proclamation. Let us hope that George Ruckle's infusion of energy continues to keep the company alive. □