

# A Gallery of Ghosts

Airplanes that saw the  
light of day—but not  
the flush of success

by WILLIAM GARVEY / AOPA 480899

■ ■ The road to success is littered with mistakes, both grand and small. In the airplane building business, mistakes often have wings, which is to say they're often expensive.

It is as much to honor those companies who have succeeded despite their missteps as it is to remind them promises are not always kept, that the AOPA PILOT does herewith humbly present,  
Their Mistakes.



## Bellanca Trainer

The biography for this nameless waif is brief but complete. Its birth announcement, a 1973 news release, read, "Flight testing is under way on Bellanca Aircraft Corporation's new two-place trainer. The engineering prototype of the high-wing, tricycle-gear trainer made its first flight on Friday, Oct. 26, with Bellanca Executive Vice President Don O'Mara at the controls. The new aircraft, which the company plans to start producing by late 1974, is powered by a 115-hp Lycoming engine and will feature a full professional panel, dual control wheels and 360-degree visibility through large wraparound windows."

But before the trainer, likened to a "fabric 150," was put into production, a recession hit, Arabian gas became scarce and Bellanca's financial footing got slippery. The trainer's death came, ignominiously, last fall when it was cannibalized at the place where it was born.

"I think our new little airplane will be able to offer some stiff competition," one Bellanca executive boasted back in '73. It might have; we'll never know.



The goal was admirable—a super-low-cost twin trainer—but the reality was something less. It was called the Lancer 402 and was built by Champion Aircraft of Osceola, Wis.

Its merit was obvious. When the Lancer went into production in 1963, it bore a price tag of \$12,500. Its closest price competitor was Piper's Apache which then was selling for \$37,990.

But its demerits were just as plain and, unfortunately, more numerous. To begin, it was ugly, a regular pelican with boils. It had long main gear legs which hung permanently from its high strut-supported wing. Its small snout, tall

windshield and high perched nacelles merely accentuated its compromise design. Add to this the fact that the Lancer was fabric-skinned and its narrow cabin required tandem seating, and you've got an idea of the salesman's problems.

The Lancer's most serious failing, however, was not cosmetic. It was muscle, or lack thereof. The Lancer was powered by two 100-hp Continentals which turned fixed-pitch props. Needless to say, its performance was neither exciting nor reassuring. Sales followed suit. About two dozen were sold before production was permanently halted.

## Cessna CH-1



The "Twin Quad" was one part Bonanza, one part Twin Beech and five parts ambition. The year was 1947 and everything seemed possible to aviation's soothsayers. The Beechcraft Model 34 created to handle the anticipated growth of the feeder airlines, was as advanced in design as in hope. This V-tailed, all-metal, 20-passenger transport could be quickly converted for cargo hauling and its two props were spun by four 400-hp Lycomings (thus the name "Twin Quad") which were completely recessed in the wings.

"An extensive flight testing program proved the 'Twin-Quad' to be the plane the air transport industry was then frantically demanding," reported Beechcraft's official biography. "But financial problems overtook the airlines; the potential market shrank drastically and the Model 34 was reluctantly shelved (in 1949)."

The single prototype 34 was destroyed and its pilot killed during a flight test in 1949.

## Cessna Model 620



Designing airplanes is much like any acquired art—you do it again and again until you get it right. This aircraft is a case in point. In 1951, William Piper, Sr., agreed to enter his little company into the twin-engine airplane business. His plane, he insisted, would cost less than \$17,000. To meet that figure, the aircraft would be constructed of metal and fabric, be powered by two, four-cylinder engines, have fixed-pitch props and, possibly, fixed gear.

The finished product was a twin-finned, four-place machine powered by 125-hp Lycomings. Flight tests, which began in March, 1952, revealed the boxy craft suffered from serious

vibration and engine cooling problems.

Back to the drawing boards. The double tail was replaced with a conventional single fin, retractable gear was agreed to, 150-hp engines with constant-speed props were added and the fuselage and wings were re-skinned with aluminum. The price for this airplane was \$30,000, a staggering sum to Piper whose company had survived—unlike so many others—thanks to inexpensive airplanes like the Cub. But they crossed their fingers, named their twin "Apache" and went to market. This time, they'd got it right.





## Champion Lancer

In the summer of 1952, Cessna aircraft purchased the Seibel Helicopter Co. and the following year that marriage produced an unfortunate offspring, the CH-1, a whirlybird trapped in a Skylane's body. Cessna hoped to sell the little choppers to the Army and the Pentagon did purchase 10 improved models in 1957, but never came back for more. So, Cessna dressed up its 270-hp orphan with a four-place "executive interior," named it "Skyhook" and tried to sell

it to civilians at \$80,000 per copy. The drums rolled, the trumpets blared, the press releases flew, but only 23 Skyhooks got sold. So finally in December 1962, after having spent 10 years and several million dollars, Cessna abandoned the helicopter business. It recalled and then scrapped the Skyhooks it had sold and went back to building airplanes with fixed wings and wheels.

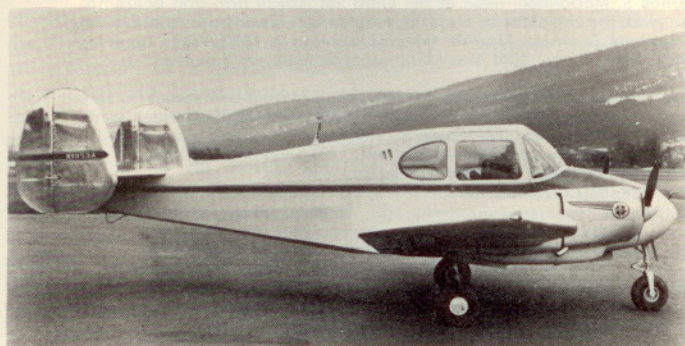
## Beech Twin Quad



All Cessna's come in two flavors, single-engine and twin-engine. Right? Wrong. There was one brief but magnificent moment when Cessna conducted a four-engined symphony; the movement was entitled the Model 620. It had four, supercharged, 320-hp Continentals, a stand-up cabin, seats for 10, pressurization, airconditioning and a wash room. Cruising at 18,000 feet, the 620 could fly 1,450 sm at 247 mph and arrive with 45 minutes reserve in the tanks.

The 620 first flew in August 1956, and its flight trials

proved it a good airplane, equal to its design goals. The 620's flaw wasn't one of engineering, but rather one of timing. As the big Cessna neared production, the airlines began buying jets and dumping their prop-driven Convairs and Martins on the civilian market. A cost analysis by Cessna revealed that corporations could purchase large, surplus airliners for less than a new 620 would cost. That finding was fatal; the 620 program was cancelled in 1957.



## Piper Apache



# Mooney Mark 22

The engineering that precedes prototype construction is often so detailed and so complex it can take years to complete. But the thousands of dollars invested in these "paper" airplanes can prevent a badly designed prototype from being built, a far more expensive proposition.

With that in mind, the original Mooney Mark 22 comes into focus. The Kerrville, Tex., planemaker's single-engine models had earned an enviable reputation for their low cost and high performance. The next logical step for Mooney was to build a twin, which it did, lickety split.

Armed with a minimum of engineering data and a maximum of energy, the Mooney makers pulled the nose-mounted engine off an M20A, hung two 180-hp Lycomings on the wooden wings, installed a dorsal fin and sent the insta-twin skyward. That was in 1959. In 1960, the twin Mooney was disassembled, never to be seen again.

Recalled one Mooney engineer, "that thing would never have been certified . . . it had no directional control if you lost an engine. It was just an assemblage of parts that made it look like a twin."



# Mooney Mustang

Why doesn't someone build a pressurized single? You've not heard tell of the Mooney Mustang. The Mark 22—the same designation as that of the short-lived Mooney twin—first took flight on Sept. 24, 1964, and it was one screamin' single.

Powered by a turbocharged 310-hp Lycoming, the Mustang could buzz along with five souls on board at a cool cruise of 229 mph. Maximum speed was 256 mph, range was over 1,000 miles and its service ceiling was a storm-topping 24,000 feet.

Performance was no problem for the Mustang, but money was. The Mark 22 was an expensive bird to build and buy. When sales began in 1967, the Mustang went for \$34,000 but the price climbed as fast as the plane. By 1970, the year Mooney aircraft shut down completely, the Mustang was selling for \$47,000.

During its four-year production run, only 28 Mustangs were built and when Republic Steel restarted the Mooney line in 1973, it passed over the Mark 22. The Mustang was just too much pony, even in Kerrville, Tex.



# Piper Pocono

The Big Airplane has often become the Big Headache. For Beech it was the Twin-Quad. For Cessna it was the Model 620. For Piper, the migraine was called Pocono.

Design work on the mini-airliner began in 1966 and two years later an impressive piece of metal rolled into the sunshine at Piper's Vero Beach, Fla., plant. The craft's long, nearly stand-up cabin could seat 18, its 51-foot-wide wings could lift 9,500 pounds and its twin, 500-hp supercharged Lycomings could pull it along at 210-230 mph. A lot of airplane for \$200,000.

The plane flew but was never placed in production. It had a weakness—power. William T. Piper, Sr., had commanded his flagship be piston-powered, reasoning that turbines were too expensive and Jet-A was not universally available. But the piston engines then available simply weren't equal to the Pocono's needs and so the big Piper was tied down in limbo. Waiting. And so it waits today, sun-bleached and weathering on flat tires and without engines in an obscure corner of the company's Lakeland, Fla., ramp.



# McDonnell Model 220

James S. McDonnell, head of the giant aerospace firm that bears his name, was the recipient of a meritorious service award presented during the National Business Aircraft Assn. convention in 1966. When he stood to accept the honor, "Old Mac" said, unabashedly, he'd paid for it. Dearly.

You see, 10 years earlier the Air Force had invited companies to submit flying entries to compete for an executive jet contract. McDonnell sank about \$11 million into developing its entry, a four-engine beast called the Model 220. Unfortunately for McDonnell, Lockheed entered the competition. It called its entry the JetStar and the Air Force called it the winner.

McDonnell considered marketing his .79 Mach jet as a corporate carrier, but the project fizzled, the prototype was donated to the Flight Safety Foundation and McDonnell went back to building F4 Phantoms. The 220, by then grounded, changed hands several times until 1974 when it was purchased by Richard Archer, a wheat farmer, for \$160,000. Archer says he's not quite sure what he'll do with his mini DC-8, but then neither was James S. McDonnell. □