# The GA fleet—through the decades

## 50 years of GA airplanes

**BY DAVE HIRSCHMAN**

Pilots have always been a progress-oriented crowd.

So, some of today's headlines about the general aviation fleet—had pilots from 1958 been able to read them when the first *AOPA Pilot* rolled off the press—likely would have enthralled them:

"Future Pilots Navigate By Satellite"

"Cockpit Computers Show Maps, Weather, and Traffic"

"Very Light Jets Become Air Taxis."

Other recent developments, however, might have confounded them:

"New Airplanes Made of Plastic with Fixed Landing Gear"

"New Trainers Built In China"

"Skyhawks, Bonanzas, and Cubs Still Produced in Twenty-First Century"

"Average Age of GA Piston Fleet Exceeds 30 Years."

Mid-twentieth century pilots, like other Ameri-


**The Super Cub helped make Piper a household name in the 1950s (top). Cirrus is one of today's success stories—its SR22 had outsold other models by the close of 2007.**

CHRIS ROSE


Cessna introduced the 175 Skylark in 1958 (top). The 172 was launched in 1956 and continues to be built today (above).

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cans of that era, had decidedly Buck Rogers expectations for the future—so it might shock and disappoint them that we're not commuting to work in flying cars or jetpacks.

But their optimism for GA was well founded. And it was based on a solid record of technological and performance advancements. GA had undergone some wild swings in the years immediately following World War II with a painful shakeout among aircraft manufacturers. But by 1958 the industry had stabilized, the economy under President Dwight Eisenhower (and Vice President Richard Nixon) was growing, and all indications pointed to a healthy GA outlook.

Beech, Cessna, and Piper were pumping out a dazzling array of new single-engine aircraft ranging in price and capability from the Piper Tri-Pacer ($8,000) to the sleek, V-tail J-35 Bonanza ($24,300). Cessna's Skyhawk ($9,250) introduced two years earlier was selling well, but the company planned to replace it with an "improved" Skylark ($13,050). The powerful Skylane with its 230-horsepower Continental 0-470 engine was a big hit with the aviation press and the first of what would become generations of loyal customers.

The TV show *Sky King* was a national staple (a new Cessna 310 such as the crime-fighting "Songbird" featured in the show sold for $60,000), and Cessna planned to dramatically expand access to aviation by introducing a low-cost trainer—to be known as the Cessna 150—the following year. Cessna went on to build almost 24,000 of them, and Cessna 150s were used to train several generations of private pilots.

The Piper Matrix was introduced to the market in 2007.

Aircraft makers **in the** late 1950s **regarded tricycle gear** as a way to expand the **GA market.**

**The 7EC Champ was first introduced in 1954 (above left). Eclipse Aviation has shipped more than 100 Eclipse 500 very light jets since the start of 2007 (right). Diamond's DA42 has been purchased by more than 136 new owners (below).**

### Life in 1958

Flying was still expensive in 1958 compared to other activities.

A new Chevrolet Corvette cost $3,631 that year; the average U.S. home was $12,500; fuel cost 25 cents a gallon; first-class stamps were 3 cents, and the national minimum wage was set at $1 an hour.

But the United States, and aerospace in general, was making startling progress on many technology fronts. The F-104 Starfighter set a new speed record of 1,404 miles an hour in 1958; the British inaugurated the first trans-Atlantic jet passenger flights with their luxurious de Havilland Comets, and Alaska had just become the forty-ninth state and offered a wide-open new flying frontier.

American workers at 10 manufacturing firms produced 6,414 new aircraft in 1958. (In 2006, the latest full year for which we have complete figures, U.S. workers at 15 firms produced 3,146 aircraft.)

For entry-level fliers 50 years ago, fabric-covered airplanes were still the norm.

Piper offered 150-horsepower Super Cubs for $5,000, and Champion Aircraft made even more economical 7EC Travelers with 90-horsepower engines. Both models had "conventional" (i.e., tailwheel) landing gear. But the move toward tricycle landing gear was well underway with Piper selling its stubby Tri-Pacer, and Champion was heavily touting a nose-wheel equipped Tri-Traveler, one of which became an AOPA prize that year. (See "The Lucky Ones," page 131.)

Out in Kerrville, Texas, Mooney was manufacturing wood-wing M-20s in 1958. The sleek, four-seat airplanes with their trademark "Johnson bar" retractable gear, would become the foundation of a long line of sporty, low-wing airplanes that continues today. The wood wings and the Johnson bar are long gone from today's faster and more powerful Ovation 2, Ovation 3X, and Acclaim models.

Aircraft makers in the late 1950s regarded tricycle gear as a way to expand the GA market and make flying as simple as driving. With that in mind, rental agency Hertz founded its rent-a-plane division with a pair of Forney Aircoupes. The fixed-gear, two-seat planes had flight control systems that mimicked cars, with a single brake pedal on the floor and no rudder pedals. But the idea failed to inspire.

Among twin-engine aircraft, Beech was still adding features to its Super 18, the twin-engine, twin-tail, heavy hauler that had been equipped with 450-horsepower Pratt & Whitney radials since 1937. The company's stout Twin Bonanza had arrived as the more modern mode of executive travel. Beech's Travel Air (originally labeled Badger) had just arrived with a pair of 180-horsepower Lycomings. But the Baron, which would eventually take a dominant position in the piston twin market, was still in the idea phase.

Cessna offered its twin-engine 310, and Piper was shipping its curvy Apaches at a rate of almost 100 per quarter in 1958. Both manufacturers would offer a long line of piston, and later, turbine twins—but plans for such airplanes were just beginning to take shape.

American GA aircraft manufacturers built a larger number, and a greater percentage, of piston twins in the late 1950s than now. The split between singles and twins was about 7,000 to 900 in 1958 (12.8 percent twins) compared to about 2,200 to 80 in 2006 (3.6 percent twins).

Other monumental changes that would eventually reshape the GA marketplace were just beginning to take form a half-century ago. The notion of private, turbine-powered aircraft probably seemed like an oxymoron then—but such planes provide the lion's share of revenue from GA aircraft sales today.


Grumman (now Gulfstream) was making its initial foray into corporate aviation in the late 1950s with its twin-engine, turboprop G-1. The 12-seat, Rolls-Royce-powered airplane was a game changer, though, and it propelled the company now based in Savannah, Georgia, on to a long series of ever-more-capable and luxurious jets. In 2006, Gulfstream delivered 113 business jets including 71 top-of-the-line G500/550s.

Cessna didn't make any GA turboprops or jets in the 1950s, but it delivered 307 kerosene burners in 2006 ranging from the C-208 Caravan to the Citation X. (Cessna also delivered 865 piston singles that year.)

**Old-timers** then lamented that **VORs,** or "omnis," reduced cross-country navigation to **child's play.**

Single-engine turboprops simply didn't exist in the GA fleet in the late 1950s but they've become an increasingly important part of the GA industry today. Hawker Beechcraft, Cessna, Piper, Pilatus, Quest and Socata are pushing major advances in size, speed, and efficiency.

Experimental, amateur-built aircraft made from plans or kits were a fringe market in the 1950s. But such airplanes now number more than 23,000 on the U.S. aircraft registry and comprise roughly 10 percent of the single-engine, piston GA fleet.


Beechcraft introduced the V-tail J35 Bonanza in 1958 (far left). The G36 Bonanza has gained its own following today (left).

And the nostalgic appeal of some light sport aircraft probably would have charmed them, too. The fact that two companies, neither of them Piper, are making modern versions of the once ubiquitous J-3 Cub might raise eyebrows. And the notion that such planes would be equipped with air bags, glass panels, and satellite navigation would seem incredible.

Other former GA mainstays were on their way out in 1958. Luscombe's classic Model 8F Silvaire was the last in a distinguished and well-loved series. And Bellanca's Cruisemaster was the company's final triple-tail design.

### Back to the future

Ideas such as GPS, data-link weather, synthetic visions, on-board collision avoidance systems, composite materials, and ballistic airframe parachutes would have seemed like science-fiction to pilots 50 years ago. But mid-twentieth century pilots might be equally surprised at the lack of advancements in other areas. Air traffic is still guided by ground-based controllers using radar and voice radio. Some chunks of U.S. airspace are still off limits.

Most of us are still flying gasoline-powered, piston airplanes with similar performance to the ones they knew. And, despite vast improvements in avionics and weather reporting, we're still making poor decisions and causing accidents that involve mistakenly flying into low visibility, running out of fuel and showing off.

Avionics were undergoing a steady series of upgrades in the late 1950s—especially navigation radios. Old-timers then lamented that VORs, or "omnis," reduced cross-country navigation to child's play. And a then-state-of-the-art Narco "Superhomer" cost more than $500 (about $3,500 today), roughly the price of a mid-range panel-mount GPS/com with capabilities that would have boggled a 1950's pilot's mind.

Pilots 50 years ago surely would have been tantalized by the promising new vistas in GA that capture our imaginations. The idea of small, efficient turbofan engines powering high-flying, very light jets would have excited them just as much as it does us.

**Looking ahead**

What's in store for the next 50 years? What will the writer assigned this story say about the GA fleet on *AOPA Pilot's* one-hundredth anniversary in 2058?

Will air taxis be commonplace around the industrialized world, or a flash in the pan? Will GA pilots be flying new, 2058 model Skyhawks, Bonanzas, and Cubs? Will today's prices seem as quaint in the future as the 1958 prices do now? Will we still be burning fossil fuels?

And how about light sport aircraft? About 565 new fixed-wing light sport airplanes were added to the U.S. aircraft registry in 2007, and industry backers expect sales to exceed 1,000 new light sport airplanes this year. At that growth rate, newly manufactured light sport planes could soon surpass certified, single-engine aircraft production.

The Cruisemaster was Bellanca's final triple-tail design (above).

Personally, if I'm still flying in 50 years (at age 96!), it'll probably be in a light sport aircraft.

Will today's **prices** seem as **quaint** in the future as the **1958** prices do now?

By then, however, I'll go out on a limb and boldly predict AOPA will have successfully lobbied for a series of speed restriction increases that will allow LSA's to fly 200 knots. Mine will be powered by fuel cells and follow voice commands.

That may seem outlandish. But life's full of surprises. Who, for example, would have guessed in 1958 that Elvis was about to join the army?

Anyway, here are a few headlines you may see in *AOPA Pilot* sometime before the one-hundredth anniversary issue in March 2058:

"Citation XXXXX Equipped With G10000"

"Solar-Powered Skycatcher Flies Non-Stop to Wichita—From China"

"Still No Jetpacks . . ." AOPA

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