

## Sweet Smell of



# NEW

In the Spring, a young man's (or woman's) fancy may lightly turn to thoughts of love, but a pilot's fancy invariably turns to flight. And what better time to buy a new airplane than at the beginning of the good-weather flying season?

An airplane is the most prized of personal possessions. It is not only a tool—for recreation, personal or business transportation—but also a reflection of its owner. We are what we fly.

Many good reasons argue for the purchase of a new, rather than used, airplane. Possibly the best reason is that, if we don't buy new airplanes today, there won't be any used airplanes available tomorrow.

In the following pages, *AOPA Pilot's* editors have selected a representative sample of the aircraft currently in production and available for

purchase today. It is not an exhaustive listing by any means; its purpose is to simply suggest some of the many alternatives.

We have grouped the aircraft into various

classes—taildraggers, fixed-gear singles, what we have called "step-up" singles, high-end singles and light twins, turbine-powered airplanes, and helicopters.

You will see that a new aircraft is available for just about any application you can imagine. And the applications to which aircraft are put is limited only by the imaginations of the men and women that own and fly them.

You may be surprised to find some real bargains on the lot. With interest rates and fuel costs under control and some insurance costs actually declining, there may be no better time to buy than the Spring of 1989. —*The Editors*

# HERE COMES THE SUN

**THE** corks remain in the champagne bottles and no one is humming "Happy Days Are Here Again," but the decade-long drought for the general aviation industry appears to be over. Pessimists will argue that a 1988 sales increase of just five percent does not a recovery make. Even the detractors, however, must acknowledge that the corner may have been turned. In 1988, for the first time since 1978, the number of general aviation aircraft delivered was not lower than in the previous year—1,143 compared to 1,085 in 1987. Meanwhile, the General Aviation Manufacturers Association reports billings climbed nearly 41 percent to \$1.9 billion, thanks in large part to the success of high-ticket business jets like the Gulfstream IV.

Too often in the last decade, the aviation media have described aircraft manufacturing executives as "cautiously optimistic" about the following year. Few believed the optimism, though, as those same executives announced production cutbacks, employee layoffs, and shrinking model lines.

This year is different. The optimism has basis. Every major U.S. general aviation manufacturer is predicting increased production of some models.

Manufacturers attribute three major factors to the slump in general aviation sales: skyrocketing product liability insurance costs, a glut of high-quality used aircraft, and competition from foreign manufacturers. The effects of two of those factors have been stemmed somewhat over the last couple of years. Product liability is still a major concern, but the rapidly increasing costs have slowed. The number of good quality used aircraft also has shrunk as the fleet grows older. As a result, the prices of the remaining "cream puff" aircraft have climbed to nearly that of new airplanes. The average price of used single-engine aircraft increased 11 percent last year over 1987 prices. Meanwhile, the average age of a general aviation airplane is more than 21 years.

Foreign competition, however, is a continuing problem faced by U.S. manufacturers, but it is a two-way street. The weak U.S. dollar has made used aircraft



## *A tumultuous decade of decline ends for general aviation.*

a real bargain for Asian, African, and European buyers. Record numbers of used aircraft are being shipped overseas, helping to reduce the glut in this country. That ultimately could encourage the purchase of new aircraft.

General aviation is the only portion of the U.S. aerospace industry suffering a trade deficit. According to the Department of Commerce, U.S. imports of general aviation aircraft doubled between 1985 and 1988, resulting in an estimated trade deficit of \$1 billion last year. About 54 percent of general aviation aircraft sold in this country in 1988 were produced elsewhere.

The growing demand for large commuter aircraft, which are included in the general aviation figures, is the driving

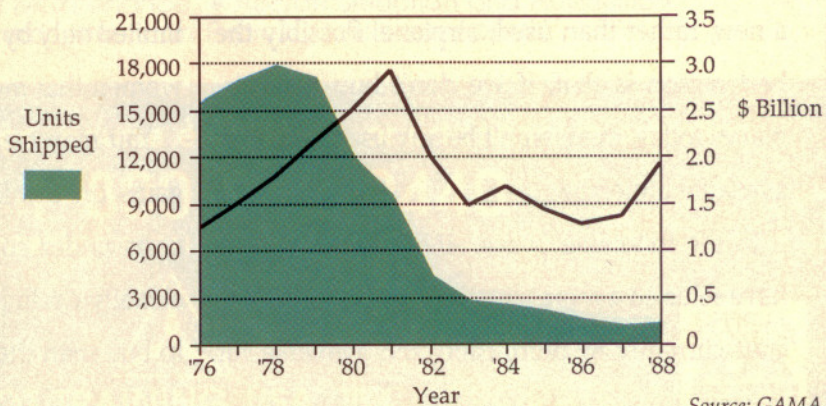
force behind the deficit. The United States produces no aircraft in the 20- to 70-seat range. Even in the single-engine aircraft market, traditionally dominated by the United States, foreign manufacturers see potential.

Though the industry faces problems, there is good news to report. Several factors make general aviation aircraft a better value than ever. The accident rate of general aviation decreased last year, as it has done in each of the previous six years. Hull and liability insurance rates generally have leveled off and even declined in some cases. Avgas and jet fuel prices are stable. Inflation and interest rates are in check, and banks have shown more inclination lately to finance aircraft purchases. Airline service continues to decline. The "you can't get there from here" syndrome is more widespread than ever as airlines abandon unprofitable routes. With general aviation, you *can* get there.

The number of students beginning flight training declined in 1988, but a larger percentage are expected to continue on to earn ratings than in earlier years. These more-serious students are more likely to purchase aircraft.

An industry-wide marketing campaign (the General Aviation Market Expansion Plan, GAME Plan for short) was started in 1988 and will swing into full gear this year. The GAME Plan hopes to introduce general aviation to whole new segments of society. In addition, AOPA's General Aviation Outreach

ANNUAL UNIT SHIPMENTS AND FACTORY NET BILLINGS



Source: GAMA

program started last year and continues in 1989. By educating the media, politicians, and the public, the Outreach effort also attempts to set the record straight about the value of general aviation to the nation. AOPA hopes to encourage support of a national aviation policy that assures access to all parts of the airspace system for all users.

Meanwhile, manufacturers have good news of their own. Beech will deliver the first of its long-awaited Starships this spring. Production of the 36 Bonanza will be increased this year to meet continuing demand. The price of the F33A was increased three percent this year, but it is still less than the same airplane cost in 1985. Beech also is continuing its financing deal for the A36 and B36TC Bonanza and 58 Baron. Put 10 percent down and finance the rest for seven years at nine percent for the first five years and one percent over prime for the balance. Free maintenance is included for the first 300 hours or two years, whichever comes first. Finance plans are available for other models, as well.

Mooney is projecting it will deliver about 200 aircraft this year, a 30-percent increase from 1988. About 50 to 60 of those aircraft are likely to be the Mooney TLS, a newly announced 270-horsepower turbocharged airplane.

Piper expects to double its 1988 production rate. A Cadet a day is rolling off the Vero Beach, Florida, production line. More than 80 new Malibu Mirages have been sold, and production may increase to 10 a month. Order a Super Cub today and you won't get it until well into 1990—the backlog stands at 111 orders.

Cessna plans to add 300 employees this year. A go/no-go decision to restart the single-engine piston aircraft production line may occur this spring. Conquest I production is under serious consideration. Production of the Citation V business jet is sold out for 18 months.

And so it goes. General aviation's stormy winter may be over. The corks are still in the champagne bottles, but at least the bottles are now on ice. And the airplanes are ready to go. Following is a summary of some of the new airplanes you can buy in 1989 and fly yourself.

—Thomas B. Haines



# STICK AND RUDDER CLUB

*Buy low, fly high*

**ONE** of the most enduring symbols of general aviation, the Piper Cub, still endures. After a five-year hiatus in production, Piper began building 150-horsepower Super Cubs in 1988, painting them in familiar Cub yellow. The Super Cub has always been a very capable laborer for observation work, spraying, tugging banners and gliders, getting in and out of the bush, and just plain having fun. There always has been a demand for that kind of airplane and probably always will be. Piper's new management realized that and brought the Super Cub out of retirement.

Piper added a twist to its plans for the Super Cub. They are built in the factory,

and delivered to customers just like any other production airplane, but they also are available as kits to be completed by the buyer. Finished, a new Super Cub retails for \$45,995. The kit costs \$31,395, including engine and propeller, or \$21,095 without. With either kit, the customer supplies the paint. The kit idea has worked. So far Piper has orders for 111 Super Cubs, 45 of which are for kits.

Christen Industries' A-1 Husky, which was modeled on the Piper Super Cub, was developed after Super Cub production ceased because Christen believed a sizable market still existed for a simple but rugged taildragger equally adept at work or play. Christen has been selling Huskys to both types of buyers.



The current base price is \$59,395.

There is no straddling the sport-utility line with Christen's other products. Pitts Specials are thoroughbred aerobats, each capable of performing the most complex and demanding competition and air-show maneuvers. If you want to fly upside down in an FAA-certified and factory-built airplane, the best seats are in a Pitts. The single-place, 200-hp S-1T sells for \$66,550. For even greater thrills, choose the 260-hp S-2S for \$78,995. For aerobatic training or taking along a friend, Christen offers the two-seat, 260-hp S-2B for \$82,995.

Ear-to-ear-grinning pleasure is the primary justification for the Waco YMF-5, a modern rendition of a big and beefy 1935 sportsman's biplane. Classic Aircraft, Limited, in Lansing, Michigan, began building new YMF-5s several years ago. They were an immediate success. Despite a base price today of \$150,000, the beautiful open-cockpit two-holers are back-ordered.

Avions Mudry, a small French manufacturer represented in the United States by Mudry Aviation, Limited, at Dutchess County Airport in Wappingers Falls, New York, produces the wooden-wing, 180-hp Cap 10B. The two-place Cap is a delightful aerobatic trainer and performer. It also has the economy, stability, and comfort of a pleasant cross-country traveler and may be the perfect compromise between sport aerobatics and recreational flying. It sells for \$118,800.

One of the best values among new, light airplanes is Maule Air's MX-7. For \$64,000 (Maule says it discounts list prices "substantially" on factory-direct sales) you get 180 hp and a constant-speed propeller, a ready-to-fly VFR

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panel and lighting package, and the ability to fly four FAA-size people and even a little baggage for seven hours before refueling. Thick airfoils and large flaps that extend to 48 degrees make very short launches and arrivals possible. The flaps also can be set at seven degrees negative to boost cruise speed, according to Maule. Among the options are 235-hp fuel-injected or carbureted Lycomings and a third bench seat.

The combination of generous pay-

load, 70-gallon fuel capacity, and STOL performance, all for under 65 grand, make the MX-7 a very palatable choice for utility, pleasure, or a mix of the two. Maules can be seen on floats, skis, and fat tundra tires, packing fishermen to back-country lakes, discharging a hopper full of insecticide, and transporting a family to a vacation retreat.

Maule makes two other models, the M-6 and M-7. The M-6 has the same fuselage as the MX-7 but longer wings and flaps. (All Maules have fabric-covered fuselages and metal wings.) It is better suited to short-field use and floats. The M-7 has slightly longer wings and flaps than even the M-6, and a longer fuselage that is raised at the trailing edge of the wing to provide more headroom for the third seat, which is standard. The M-6 and M-7 come standard with a carbureted 235-hp Lycoming. A fuel-injected version is optional. The M-6 sells for \$74,667, the M-7 for \$76,000. Soon to come is a tricycle-gear version of the MX-7.

Maule Air is family owned and operated. Belford Maule, the patriarch, watches over design and production while June, his wife, runs the business. Several generations of Maules work at the factory in Moultrie, Georgia. Reasonable price is a prime objective in all of their product planning. It is much the same at Piper, which, if not family run, at least is infused with the same sort of spirit, thanks to the enthusiasm and optimism of owner Stuart Millar.

Taildraggers they may be, but the sport and utility airplanes on the bottom of the hierarchy of general aviation are tops at delivering dirt-under-the-nails utility and basic stick-and-rudder fun.

—Mark R. Twombly



# STARTING LINE

*Every pilot dreams of owning a new airplane.*

**U**niversal truths abound in aviation. Once a pilot heads out over open water in a single, the engine begins to run rough. If it looks good, it flies good. There are those who have, and those who will. Every pilot's goal is to own a new airplane.

That last adage is for real. The average general aviation airplane is more than 21 years old, and the shopworn condition of the trainers and rental airplanes many pilots fly sets them to dreaming of a gleaming new set of wings.

The traditional first airplane for a pilot trained in a Cessna 150/152, Piper Tomahawk, Beech Skipper, or Piper Cherokee is a four-place single with fixed tricycle gear and fixed-pitch propeller. The speed and simplicity of the light singles are such that the low-time pilot can comfortably transition to them. At the same time a fixed-gear single can provide economical and efficient transportation for the experienced business pilot. These are airplanes that can grow with the pilot. They can be equipped for VFR pleasure flying with the family or IFR flexibility. About the only limitation on equipment is icing protection.

The roster of entry-level models has shrunk in recent years with the disappearance of Cessna's and Beech's light single-engine lines, but there still are several very appealing choices.

Piper's 160-horsepower Warrior and 180-hp Archer have weathered the dec-



ade-long slide in sales of new airplanes because they do their respective jobs well. Each is safe, comfortable, and reliable. The first PA-28 Cherokees were designed as the entry to a family of Piper singles and twins. Instrument panels, controls, and systems in each model were similar, so transitioning up to the next model was made simpler. That approach still holds today. The Warrior and Archer have the feel of larger, more sophisticated airplanes, so it is an easy step up to an Arrow, Saratoga, or even a Seneca. The Archer and Warrior are fraternal twins. The Archer's 20-hp advantage gives it a slight edge in climb and cruise performance and useful load over the Warrior. Otherwise, the two airplanes are virtually identical. Over the years Piper has refined the details by sprucing up the interiors and adding features such as wing-tip recognition lights and air conditioning, making the new-generation Warriors and Archers a breed apart from older versions. Base price of a Warrior is \$67,900; an Archer, \$73,300.

Piper's answer to the complete lack of any new trainers is the Cadet, a no-frills Warrior with two to four seats, a basic

VFR panel, two side windows, and fewer creature comforts. The VFR Cadet sells for \$57,495. A version equipped for IFR training is also available. Piper reports orders for 500, all apparently destined for flight schools.

The Dakota is the workhorse of the PA-28 fixed-gear family. It shares the Warrior/Archer airframe, but the 235-hp normally aspirated engine has the power to lift a heavier load, operate off shorter fields, climb to altitude more quickly, and cruise at a respectable 144 knots. Base price is \$103,900.

Aerospaciale's Tampico and Tobago are new players in the general aviation market in this country. The airframes are identical. The difference is in the engines: 180 hp for the Tobago, 160 hp for the Tampico. The Tampico serves nicely as a trainer or first airplane. The Tobago, with its constant-speed propeller, is more suited to a new pilot's first step up after training or as a good all-around business express and family wagon. The Tampico sells for \$70,400; the Tobago for \$91,240.

Like Piper, Aerospaciale can accommodate the pilot ready to move up. The Tampico and Tobago have the same airframe and panel as the retractable-gear Trinidad and turbocharged Trinidad. Transitioning from the fixed-gear models to the Trinidad is a matter of learning to operate the landing gear and constant-speed propeller and acclimating to the increased performance.

Both the Tobago and Tampico make a strong statement about style. The interiors are the work of an automotive designer and have comfortable bucket seats and a center console containing engine power controls, trim and flap switches, and push-on/push-off electrical switches. The attractive modular instrument panel is easily removed for access to equipment. Pilot and passengers enter through double gull-wing doors, and once they are settled in, the visibility is excellent. The airplanes have a new and welcome look, an injection of élan in what traditionally has been a very conservative industry in terms of styling innovations.

—MRT



# STEP-UP SINGLES



*Sophisticated choices for those moving up to retractable gear*

**FOR** those who find that they need more performance, a wider range of operating altitudes, and a dash more panache than are offered by fixed-gear, single-engine airplanes, the first obvious option is to look into single-engine, retractable-gear models. The field is distinguished by a variety of choices, all the way from fire-breathing turbocharged and pressurized airplanes to those with a moderate amount of horsepower and modest complements of avionics.

The latter we can call the "step-up" retractables. Even though they may not match the standards of the larger (and more expensive) singles, the step-up singles still offer quantum leaps in speed, capability, and style over less sophisticated airplanes.

On average, nonturbocharged retractables at 75-percent power at their optimum cruise altitudes will fly some 30 knots faster than fixed-gear singles. Because they usually are equipped with more powerful engines, their service ceilings are likely to be some 8,000 feet higher than fixed-gear singles. And the larger cabins in some may even allow five passengers to go along for the ride. Just make sure that weight and balance computations are accurately carried out.

A pleasant dilemma presents itself when choosing an airplane. In the "step-up" category, 1989's current-production models include the Mooney 201 and PFM, Aerospatiale Trinidad, Piper Arrow, Beech Bonanza, and Bellanca Super Viking. Each appeals to different priorities on the part of the customer.

The Mooney 201 comes in with the lowest base price of the six, at \$94,500. For 1989, several important changes have been made. The Mooney 205 has been discontinued, as has the Mooney 201 Lean Machine. Standard features from the 205, such as a 28-volt electrical system, wing-tip recognition lights, and rounded windshield and windows, have been incorporated into the new 201.

Mooney has built its reputation on fuel economy and speed. The 201 reflects these design goals very well, with a 75-percent-power cruise of 168 knots while burning a mere 10.8 gph. Sleek design and attention to drag reduction

help Mooneys attain their remarkable efficiency.

Mooney also makes the PFM, a stretched model of the basic Mooney airframe equipped with a modified version of the engine that powers the Porsche 911SC sports car. The PFM is noteworthy for several reasons. First is the reduced noise and vibration afforded by the engine and its mounting system. The airplane also has a single-lever power control that coordinates the actions of the engine, propeller, and fuel mixture automatically. Thanks to this—and the airplane's Bosch K-Jetronic fuel injection system—fuel mixture will always be set for best economy, except at high power settings. The PFM also comes with a snazzy Porsche-designed interior and a dual electrical system. Base price is \$149,900.

The Aerospatiale Trinidad, manufactured in France by Socata, the general aviation division of Aerospatiale, represents a fresh approach with computer-aided design and manufacturing techniques. Most noteworthy is the attention to ergonomics the Trinidad shares with the Tobago and other Aerospatiale singles. The Trinidad receives product support in the United States via a network of distributors established by Socata's North





American headquarters in Grand Prairie, Texas. The Trinidad's cruise speed is 164 knots at 75-percent power. Base price of the Trinidad is \$133,640. While the airplane has been around for several years in the United States, it is still enough of a novelty to turn heads on any airport.

Piper Aircraft Corporation's Arrow, with a "low" tail, is back in production this year and carries a base price of \$114,300. The Arrow continues to have a strong appeal because of its combination of roominess, good looks, and no-nonsense practicality. Its 75-percent cruise speed is 143 knots.

Anyone stepping up to an Arrow will find no surprises when it's time for those first takeoffs, landings, and other proce-

dures. This is especially true if you have any experience in other Piper singles. Another plus is its standard 716-pound useful load with full fuel. Even after subtracting for the weight of some options, it is possible to easily carry three adults and their luggage—with no small degree of comfort.

Beech Aircraft Corporation's F33A Bonanza is part of the famous Bonanza family of single-engine airplanes. The airplane's base price of \$139,850 includes a package of IFR instrumentation and avionics. The F33A looks heavier than the Mooney, Trinidad, or Arrow because it sits tall on the ramp and conveys the (correct) impression of substance. It also weighs about 300 pounds more than the Mooney or Trinidad.

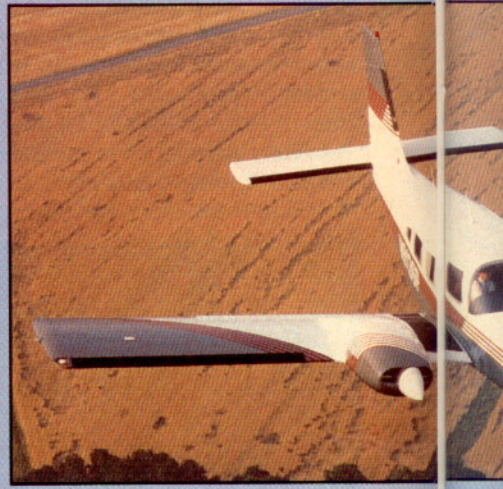
Along with its size comes comfort. The interior is big and beamy, with more than enough room for the tallest of pilots. There is even the hint of luxury, what with the well-proportioned seats, the pop-up armrest, the massive expanse of the instrument panel, and the convenient storage pockets. Maximum cruise speed at 75-percent power is 172 knots. Because of the F33A's style and lineage (among its ancestors is the Model 35 Bonanza, the V-tail design, introduced in 1947 and considered by most as the first modern single-engine airplane), the airplane perpetuates the image of gentrified elegance.

Another retractable with deep historical roots is the Bellanca Super Viking. This airplane's wood-and-fabric airframe harks back to an earlier era, but it can deliver a modern 176-knot cruise speed. It's comfortable, too, with pleasant control feel and luxurious seats. A new Super Viking has a base price of \$120,000.

Whether it's the Mooney 201's ability to extract speed from fuel, the PFM's sophisticated simplicity and sports car appeal, the Trinidad's modern design, the Arrow's practical utility, the F33A's refined image, or the Bellanca's classic look, those wanting a new entry-level retractable still can find more than enough to whet their interest.

—Thomas A. Horne







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# CREAM OF THE CROP

*It's harvest time for  
the 1989 crop of  
high-line aircraft.*



**T**here comes a time when, no matter how capable, quick, or comfortable your airplane, you find yourself wanting more—all-weather capability, systems redundancy, speed, or load-hauling ability. These are the times that prompt owners to move up, into higher performance singles and light twins.

The Beech 36-series aircraft enjoy much the same sterling reputation as the short-body Bonanzas, with an added dash of room and comfort. They are typically outfitted with enough avionics hardware to keep a pilot pampered, well informed, and busy. Both the A36 and B36TC share basic fuselage dimensions with the Baron twin. Payload is also quite good with the Beech singles: Both the A36 and B36TC can haul around 1,200 pounds, which, in the A model, leaves capacity for about 800 pounds with full tanks.

Beech's bread-and-butter six-place airplane is the normally aspirated A36, which has always had impressive performance, and the 1989 model is no different. The A36 will cruise at 176 knots at nonoxygen altitudes. It will cost you at least \$235,400, and to that you should add at least another \$70,000 to \$100,000 for a full set of IFR avionics.

If you would rather fly in the flight levels, the high-flying turbocharged B36TC will cruise at 195 knots at 25,000 feet. The 36TC provides excellent performance and top-notch comfort. Base price is \$264,800; a well-equipped model we flew last year ran \$361,652.

If the 36-series Bonanzas strike your fancy but you'd rather have a pair of engines, Beech will sell you a Baron. The sole survivor of the line is the basic, nor-

mally aspirated 58, with a cruise number of 195 knots. With both engines running, the Baron will climb at 1,735 fpm. There's room in the panel for virtually every bell and whistle you could want, and payload capability, too, typically more than 1,600 pounds.

At the other end of the size scale you'll find a pair of Mooneys, which because of their compact size and rakishness, are more personal than the sedanlike Bonanzas. They're also quick: The 252 could be called the penultimate word in Mooney speed—the 252's turbocharged and intercooled 210-horsepower powerplant will take the 252 to 28,000 feet, where it will cruise at 202 knots. The 252 offers good systems redundancy, with dual alternators and a stand-by instrument vacuum system.

The 252 can be had with a bewildering array of options from the factory. A full avionics package—including radar altimeter and flight-director autopilot system—can be added to the 252's panel at the Kerrville, Texas, factory. Of course, options will act on the price. A basic airplane-and-nothing-else 252 rolls out for \$135,500; most 252s leave the assembly line with a bottom line in excess of \$200,000.

The 252 sat at the top of the Mooney performance heap until early February, when Mooney introduced what one might call a big-bore 252, tentatively called the TLS. The TLS will make use of the PFM's 12-inch cabin stretch and will fly with a 270-hp turbocharged Lycoming. The estimated cruise speed is 200 knots at 12,000 feet. The primary reason for a large, powerful engine in the Mooney's nose is to provide 252-style speed

at nonoxygen altitudes; the 252 must go well into the flight levels to realize a 200-knot cruise. Climb performance will be outstanding—not surprising in an airplane that should weigh about the same as the Porsche-powered PFM but with an additional 50 hp. The TLS's base price is \$175,000.

Aerospatiale's Trinidad TC takes a tack similar to the Mooney TLS's, using a large turbocharged powerplant to help ensure good performance at both high and low altitudes. The TC's Lycoming is rated for 250 hp; at 75-percent power and 25,000 feet, the Trinidad will cruise at 187 knots. The TC can haul a load in that capacious cabin, because useful load on most well-equipped Trinidads will be around 1,100 pounds; not bad, even with the 86-gallon-usable tanks taking a 517-pound chunk out of that. Base price for the TC is \$162,600.

Piper's Saratoga SP is about as far removed from the Mooneys as a station wagon is from a sports car, but it has a loyal following. Though no speed demon—cruise runs 159 knots—the Saratoga provides good range, and it is docile and forgiving. Its simple systems and long production life make the aircraft reliable in the long term. Considering its room and payload for six, the SP's base price of \$158,900 is a bargain.

If you want to carry six, and do it in one of the most comfortable, stylish ways possible, you might be happier with a Piper Malibu Mirage. The pressurized Malibu, unquestionably the *ne plus ultra* of piston singles, this year has a new powerplant and more horsepower. The Textron Lycoming TIO-540

produces 350 hp, up 40 from the earlier Malibus. The Mirage will cruise at 225 knots at an altitude of up to 25,000 feet, where, by virtue of its pressurization, cabin altitude is 8,000 feet. The Mirage includes electrical and instrument vacuum system redundancy as well as deice boots. The base price is \$349,000; a \$500,000 Mirage could be in the offing for those with a penchant for options.

While sophisticated singles have thrived in the recent past, it was beginning to look like light twins were on the endangered species list. Not quite so at Piper. For 1989, two piston twins will be rolling out of the plant, the six-place Seneca III and the four-place Seminole. A charter staple for years, the Seneca III has the same generous cabin dimensions as the Saratoga series and a pair of 220-hp turbocharged engines. The Seneca starts at \$224,500.

The T-tail Seminole has 167-knot cruise and a two-engine sea-level rate of climb of 1,340 fpm. It is perhaps best known as a docile, economical multi-engine trainer, although with generous payload and range, Piper's smallest twin makes a fine personal transport.

Then there are the specialty aircraft, those that don't readily fit into any single category, or, as with the Lake amphibians, are the sole inhabitants of a particular class. Lake produces two versions of its amphibian single, the primary difference being powerplant choices. The Turbo 270, as the name implies, has in its towering pod a turbocharged 270-hp engine. The Renegade 250 uses a 250-hp normally aspirated engine. Cruise speeds range from 132 to

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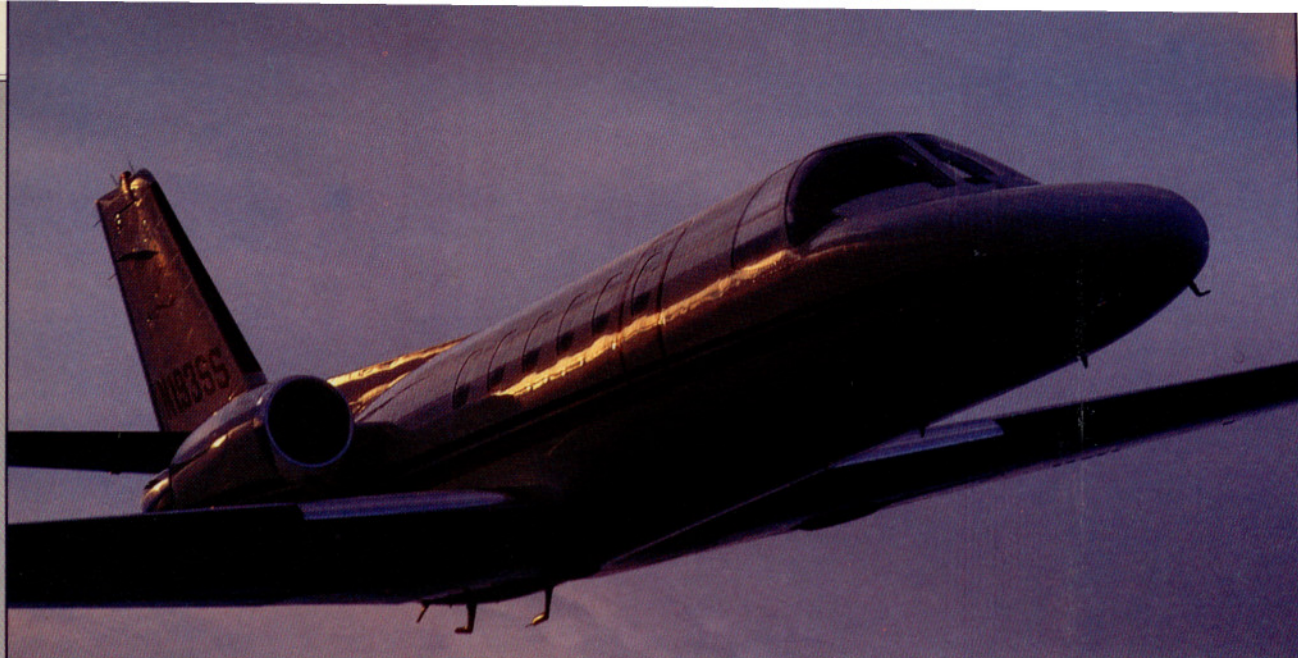
155 knots for the two wet-and-dry aircraft; basic prices are \$237,800 for the 250 and \$264,800 for the Turbo 270.

Agusta is turning out the SIAI Marchetti SF.260—and an Allison-powered 260TP is in the testing stage—whose aerobatic capabilities have helped make it a popular *ab initio* military trainer and an air-show fixture. The 260-hp, three-seat SF is certified in the Aerobatic category and can perform sustained inverted maneuvers thanks to the inverted fuel and oil systems standard on the D model. For a base price of around \$220,000, the Marchetti will provide a 182-knot cruise speed and fighter-jet-like responsiveness.

It's important to put the strength of this class of aircraft in context. Although none of the aircraft listed here have been or are expected to sell in the volume fondly remembered from general aviation's heyday, support still is strong; buyers are willing to pay for capable, well-equipped aircraft. And with more existing models being put back into production for 1989—the Seminole, for example—the future of the heavyweight singles and light twins seems secure.

—Marc E. Cook





## KEROSENE ALLEY

**WIN** the lottery? Given that an airplane is the world's finest personal possession, the ultimate has to be a brand-new turbine-powered airplane that you can fly yourself. And until some of the single-engine turboprops come upon the scene, the new ones in production that you can buy and fly by yourself are King Airs and the Citation II. Piper Cheyennes are also eligible, but the emphasis there is currently on sales to airlines as training aircraft.

It is significant that these airplanes are actually easier to fly than some of the piston-powered twins, especially given that all of them have full simulator-based training programs that ensure both familiarity with the airplane and its systems and exposure to the darkest depths of in-flight emergency procedures. Combine excellent performance, reliability, and handling qualities with the training and you have the potential for the lowest possible risk in flying. One limitation that is reached comes with the magic number of 12,500 pounds. On the Citation II it means you are limited to that when the airplane is operated by a single pilot. Otherwise, the maximum takeoff weight is 13,300 pounds, which more than makes up for even the largest second pilot. On the King Airs, the 90 and the 200 fit into the 12,500 limit and don't require a type rating or second pilot; the 300 goes over but can still be flown by a single pilot with a type rating, as is required on the Citation II even at 12,500 pounds.

### *Turbine engines carry airplanes to the top of the stack.*

There is one way around using these airplanes where a second pilot is required, either by law or in order to get a reasonable insurance premium. Some personal turboprops and jets are operated by husband-and-wife crews. One would have to be type rated, the other would have to meet the second-in-command requirement that calls for a private certificate with instrument and multi-

engine ratings and appropriate training.

None of the airplanes are truly long-range in the sense that you can hop from New York to Paris, but they are great for getting around the hemisphere. Speeds range from about 240 knots for the King Air C90A to 369 knots for the Citation II. Live in Chicago? Want to go to New York for the day? Go ahead.

Both the King Airs and the Citation offer exceptional airfield performance. The reference speeds on the airplanes are good illustrations of this. The King Air 200 at average operating weight has a reference speed on final of just under 100 knots, and the rotation speed for



# Sweet Smell of NEW

takeoff is about the same. The Citation's speeds are barely over 100. If you happen to live in a small town with an average-length runway, any of the airplanes would link your town to the big cities.

There is a crispness to flying turbine-powered airplanes that brings a lot of satisfaction. In training, you learn to fly them precisely. Going out and flying trips with that high degree of precision is the icing on the cake. True, they are subject to the vagaries of weather, and humongous headwinds can slow them like any other airplane. But the comfortable flight decks and cabins and the low noise levels make them true magic carpets. They even smell different than the airplanes left behind, with the odor of Jet A outside and the sweet smell of very expensive fabrics inside.

The initial cost of the airplane matters not a lot because, as with any airplane, the total operating cost over a lifetime far outstrips the true cost of the airplane, which is the purchase price less the value at the end of your use. Historically, the total cost over 10 years exceeds the dollar cost of ownership by at least 10 times. In other words, the purchase price might well be the smallest number you deal with over a period of years. How much one actually costs to fly per hour is dictated by the number of hours flown per year, but for reference, the basic King Air should run under \$100 per hour for fuel where the Citation, going much faster, would run nearly \$200.

Pipe dreams? Nobody will ever make it? Folks do, and in context, hitting it big enough to have your own turbine airplane appears an attainable goal. Consider this: According to *Washingtonian* magazine, to make the A list (where other than politicians get invited to the fancy functions in D.C.) will cost you \$3.5 million to start and \$835,469.35 a year to operate. Owning your own jet is not included in this; your very own brand-new turbine airplane could actually cost less—and you'd sure meet nicer people along the way.

—Richard L. Collins

# ROTARY ADVENTURES

*There's a helicopter for every job  
and (almost) every pocketbook.*

**O**wning a helicopter provides an operational flexibility that cannot be matched by fixed-wing aircraft. Though more expensive to buy and maintain than an airplane with the same seating capacity, a helicopter can offer an excellent return on investment to the owner who can take advantage of its unique characteristics.

Helicopter flying qualifies one for membership in a pretty exclusive society. According to mid-1988 statistics compiled by the Insured Aircraft Title Service of Oklahoma City, only about one in 26 active aircraft in the United States is a helicopter; only one in 21 active pilots is a helicopter pilot.

Even at congested airports, helicopters get "preferential" treatment. The Federal Aviation Regulations dictate that helicopters must, insofar as possible, avoid the flow of fixed-wing traffic; hence, controllers often are able to clear a helicopter for takeoff or landing much more expeditiously than they can an airplane. Of course, helicopters are not limited to improved landing sites, and this makes the biggest contribution to their versatility. Many, perhaps most, people who depend on a helicopter for personal and business transportation rely on this capability. For these folks, no airplane, regardless of its cost or complexity, could approach the value added by the helicopter.

What sort of people are we talking about? There's the West Coast freelance

cinematographer who uses his Aerospatiale AS 350 as a platform to shoot videotape footage he sells to the networks for use on the evening news. And the Appalachian doctor who makes house calls to isolated mountain communities in his Robinson R22, providing medical treatment to people who otherwise might go without. And the Southwestern cattle rancher who herds his li'l doggies from the saddle of his Bell Jet-Ranger. And the CEO of a small New England R&D company who commutes from his home to the rooftop of his company's headquarters in his Enstrom 280FX. And, of course, the entrepreneur who (when not flying on his own airline) migrates between his real estate empire in New York City and his casino in Atlantic City in his very own Aerospatiale Super Puma.

At the entry-level end of the helicopter spectrum are piston-engine models: the Robinson R22, the Schweizer 300, and the Enstrom 28 and 280.

The two-seat Robinson R22 Beta is the world's most popular training helicopter, but a lot are in private use as well. At a base price of \$96,850, including com transceiver and intercom, it is also the world's most affordable helicopter. Maximum cruising speed is 96 knots.

The three-seat Schweizer 300C is a derivative of the machine that more than 60,000 U.S. Army helicopter pilots trained in. Schweizer began building 300Cs under license from Hughes/Mc-





Donnell Douglas in 1983, made its first delivery in 1984, and completed a buyout of the line in 1986. Base price, sans avionics, is \$159,900. Max cruise is 83 knots.

The three-seat Enstrom F28F Falcon and 280F Shark are the latest members of a 20-year-old clan. They are the heaviest of the piston-powered helicopters and boast the greatest useful load. They are also the only turbocharged piston models. The two models list for \$173,500 and \$191,500, respectively, without avionics. The F28F's max cruise is 97 knots; the 280FX's, 101 knots.

For those who need more speed, size, and weight-carrying ability, the next step up is to a light single-turbine-engine helicopter. The major players here are the Bell 206 JetRanger and 206L LongRanger, Aerospatiale AS 350, and McDonnell Douglas MD 500 and 530. Each line includes a model optimized for hot-day/high-altitude performance.

Bell's 206 series is the single most popular helicopter type in the world. The JetRanger is a five-seater powered by a 420-shaft-horsepower Allison turboshaft engine. The LongRanger is a larger, hot/high version; with a 650-shp Allison, it can carry seven. Base list prices, without radios, are \$495,000 and \$749,000, and max cruise speeds are 118 and 116 knots, respectively.

Aerospatiale AS 350s come in three flavors: The AS 350D AStar Mark III uses a 615-shp Textron Lycoming; the AS 350B Ecureuil has a 641-shp Turbomeca; and the hot/high B-1 uses a 684-shp Turbomeca. The hallmark of these six-/seven-place models is the commodious cabin. Base prices range from \$673,000 for the B and D to \$760,000 for the B-1 (avionics extra). Maximum cruise speeds are 125 knots for the B and D and 130 knots for the B-1.

The speedsters of the group are the McDonnell Douglas 500E and hot/high 530E, with max cruise numbers of 147 and 135 knots, respectively. The 500E uses a 375-shp Allison and the 530F a 425-shp Allison. Both seat five. Base prices are \$470,000 and \$625,000, respectively, without avionics. The 530E is due to be replaced in the early 1990s by the MD 520N, which will be the first helicopter to use McDonnell Douglas's patented Notar (no-tail-rotor) antitorque system. Target max cruise: 138 knots; target price: \$573,000.

The next step up in price and performance comes with the move into small- and medium-size twin-turbine helicopters. Twins offer the added benefits of systems redundancy and safety. These include the Aerospatiale AS 355, MBB BO 105 and BK 117, Bell 222, and Agusta 109.

The lightest of the group are the Aerospatiale AS 355F-1 and F-2 Ecureuil 2/TwinStar. Based on the AS 350 airframe but sporting a pair of 420-shp Allisons, the F-1's max cruise is 124 knots; the F-2's, 122 knots. Base prices are \$875,000 and \$1.14 million, respectively.

The MBB BO 105 comes in CB and stretched CBS variants, both powered by two 420-shp Allisons, and the hot/high LS-A3, with a pair of 550-shp Allisons. The CB seats five; the CBS and LS, six. Max cruise for the CB and CBS are 131 knots; for the LS, 132 knots. Important features of the BO 105 are the volume of the cabin and the clamshell doors at the rear of the fuselage that make loading and unloading bulky objects simplicity itself. Base prices range from about \$1.1 million (CB) to \$1.22 million (CBS) to \$1.45 million (LS).

The BK 117 B-1 incorporates the advanced technology, including the rigid rotor system and clamshell loading doors, of the BO 105 in a larger, more highly developed, and more aesthetic package. Powered by a pair of 550-shp Lycomings, the BK 117 can carry 10 at a max cruise of 136 knots. Base price is around \$2.04 million.

The Bell 222 is available in two versions, the B, which lands on wheels, and the UT, which uses skid gear. Both use 684-shp Lycoming engines; both are approved for single-pilot IFR flight without a stability augmentation system; and both can seat nine or 10. The B's max cruise is 149 knots; the UT's, 143 knots. The B lists for about \$1.8 million; the UT, \$1.6 million.

The Agusta A109 is also available in two versions: the Mark II Plus and the C, both with a pair of 450-shp Allisons; both seat eight and are certified for single-pilot IFR; both offer a max cruise of 152 knots. Base prices are \$2 million and \$2.1 million, respectively.

At the top of the ladder are the big twins: the Sikorsky S-76 and the Aerospatiale AS 365. Here, for a price, you will find the most sophisticated avionics and an unparalleled degree of luxury, even on the flight deck.

Two basic models of the Sikorsky S-76 are available: the A Mark II, with a pair of 650-shp Allisons (an A+ variant, with 720-shp Turbomecas, is also available), and the B, with 981-shp Pratt & Whitneys. Both carry 14 at a maximum 145 knots. Equipped with a VHF com radio, base prices are about \$2.55 million for the A, \$2.9 million for the A+, and \$3.4 million for the B.



