

Flying High When Money's Tight

by DON DOWNIE / AOPA 188441

Not all pilots can afford
the fine new aircraft
available today. But a plain
plane that dates back
a decade or two might give
you the freedom to fly

■ ■ Every pilot I know likes to fly new equipment. Unfortunately, many of us can't afford it. Shotgun statistics show that unless you fly at least 200 hours annually, you're better off to rent. Club plans and partnerships have both economies and woes. After sampling all the alternate systems, you may finally decide to take that big plunge and get a little old aircraft that's all your own. The leap into the sky is made despite gas and use taxes, mandatory ELTs and strobes, increasingly expensive tiedown or hangar fees and the threat of increasing restrictions to general aviation.

After more than 35 years of flying other people's airplanes, I finally picked up a well-broken-in 1952-model tail-dragger. Ownership is a liberal education, and so far it's been well worth it.

Where Do You Look?

Ads for older aircraft are enticing, particularly if you've planned a leisurely rental trip and found that the ship was already scheduled, down for maintenance, overdue from a weather delay, or sold. "Trade-A-Plane," national and regional aviation publications and the classified-ad section of larger daily papers make interesting reading—and dreaming.

"1946 Aeronca Champ. Ceconite. Original. Immaculate. \$2,500."

"1960 Cessna 150, new radio, one month on annual. 1,050 SMOH. \$2,800."

"1959 150. VHTs. 980 SMOH. \$2,995."

"Luscombe Model 8E, all metal, low time since major. Very good condition inside and out. \$3,000."

"J-3 Cub. New license. 500 SMOH. 80 STOH. \$2,600."

"1954 Cessna 170B. 1,800 TT. 700 SMOH. 20 on top. \$4,950."

"Piper Tri-Pacer, 1956. 135 hp. Excel-



A Tri-Pacer, Piper's basic four-place airplane of the '50's and early '60s, flies over Banning Pass, Calif.



This Aeronca 7AC Champ was bought for \$1,500, flown 450 hours, and sold four years later for \$2,000.

lent condition. Gyro panel, Narco Mark 2, \$3,500."

"Stinson Voyager 150. 108-1. 600 SMOH. Alpha 200. All metal. New paint, \$3,850."

"1946 Cessna 140. All metal. 1,100 TT A&E. Dual brakes, electric T&B, wheel extensions, metal prop, late-model control wheels and air vents. \$3,200. With Alpha 200, \$3,600."

"1946 Ercoupe 415C, 85 hp, all metal. 120 hours on new engine. Mark 4, new paint, new double-fork nose gear, T&B, R/C. \$2,985 firm."

While you're ogling the classified ads, don't forget your friendly new and used aircraft dealer. He may have an older model due in on a trade and would be more than happy to make two deals at the same time. If the prices are competitive, you're probably just as well off to work in your own local area. This permits a fair evaluation by a "neutral mechanic" and gives you a chance to delve into the background of the ship. You'll want to know age, history, major repairs, condition of engine and airframe, propeller and accessories.

One of the main reasons for a thorough inspection is to discover any repairs that may not have been entered in the logbooks. Since major repairs tend to devalue any airplane, a few less-than-ethical mechanics have made their own repairs, put the airplane back into the air and just neglected to write down anything in the logs. The owner that you buy from may be completely innocent, since the repairs could have been made by any one of a series of previous owners.

What may look like a real low-investment "cheapie" can be just that, and nickle and dime (and dollar) you to pieces. Investing a few hundred dollars

more may produce a relatively trouble-free machine that will open a whole new flying program for you.

Picking the right airplane is a combination of luck, opportunity, finances, timing and a streak of horse-trading thrift. Unless price is no object, you don't just walk in to the nearest aircraft broker, nudge a tire or two and say, "I'll take that one. How much is it?"

You'll spend the midnight oil perusing aircraft-for-sale advertisements. You'll talk with your local mechanic, spend time with your EAA friends who build and maintain their own, or stop at the nearby FAA office and talk with the maintenance inspector regarding the number of airworthiness directives on the various older models. You'll find out the cost of a top overhaul, a major or an engine exchange on that powerplant you may be holding hands with for years to come.

A bargain is a relative thing. If you want a specific plane and model, you can undoubtedly find it at a price. If you keep an open mind and see what's available in the price range you want to pay, you'll probably save money and hopefully come up with a better product. Don't be in a hurry.

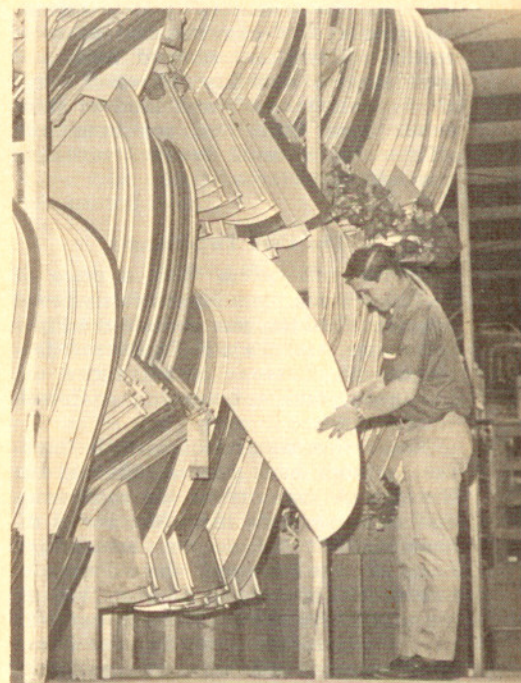
When you do find an ad that sounds interesting, follow up with a letter or phone call. We've all heard classic stories of either buying without looking or paying the air coach fare to pick up a ship, only to find out that it was much "dog-gier" than purported. If the seller wants to bring the ship to you, work out a deal where you'll pay his fuel expenses, or something like that, if you don't buy, and let him cover all other outlay.

It's a great deal simpler, and there are enough older airplanes around, to find one to your liking in your nearby

area and look it over tail-to-prop. A MUST before any aircraft purchase is an independent inspection by an unbiased mechanic, assuming you're not an airframe-and-powerplant man. This may range anywhere from \$10 for a "once-over-lightly" to \$50 or more for a thorough delving into every part of the ship. We paid \$17.50 for a quick look at a relatively clean aircraft.

R. J. "Bob" Collins, a veteran mechanic at Brackett Field, Calif., had a suggestion that some may not agree with, but it makes sense. "When it comes to that pre-sale inspection by an A&P, try to pick a guy who grew up with that particular age of aircraft. Many newer mechanics are not familiar with fabric, wood and steel-tube structures, since most modern aircraft are primarily metal structures."

Collins considers that it costs him \$50 to make a complete inspection of an older aircraft. He checks the license and maintenance paperwork, measures engine differential compression, looks through a borescope for pit corrosion (rust) inside the cylinders, and pulls the oil screens after runup and mag check. If it's a steel-tube and fabric job, he'll make a series of fabric punch tests and check for rusted tubing, particularly in the bottom longerons at the lowest point just forward of the main



These tail surfaces for Piper Cubs are among the parts available from Univair, near Denver, for repair of older planes.

gear anchorage and, with a taildragger, at the tubing just in front of the tail-wheel.

"I want to know the complete history of the ship," said Collins. "If it's a metal aircraft, you have a better buy if it's been stored more than 30 miles away from the coastline, because of corrosion. Salt air just chews them up, and smog doesn't help any, though it is not as damaging as sea air.

"Wood and fabric airplanes generally are the reverse as far as deterioration is concerned. They remain in better condition if not exposed to the low humidity and high temperatures of the desert.

"I don't worry too much about oil on the outside of the belly. That's easy to clean up, but watch out for how much oil there is on the inside of the fuselage.

"There's really no such thing as a 'cheapie.' The problem of parts availability is always a problem with older aircraft. I've spent as much as \$100 in phone calls and time to track down a set of struts. Doors and cowlings can also be a problem."

Some veteran mechanics have learned, moreover, to be skeptical of new paint jobs. "It's too easy to try to cover up exterior corrosion or tired fabric with a quickie paint job," commented one graying A&P.

Latest FAA records, as requested by AOPA, indicate that about 75 percent of the general aviation airplanes flying today are more than 10 years old. Thus each geographical location has its own airplane junkyard specialist, and almost every airport has a boneyard that is hopefully out of sight of the Sunday visitor.

In preparing this report, we reflew many of the "cheapies" just to refresh our memory. By today's standards, most are incredibly slow, cramped, noisy and have limited visibility. However, they all fly well, take off and land in short fields, burn little fuel per hour and offer a fine trade-off between nostalgia and cost and elapsed time.

The Used Two-Placer

In the two-placers with a price of \$4,000 or under, you have a fairly broad selection. Taildraggers include the Piper Cub series, Aeronca and Taylorcraft fabric jobs, the Cessna 120/140 series, the Luscombe, and a scattering of lower-volume units.

Nosedraggers start out with the high-time, straight-back Cessna 150s and the Ercoupe. A majority of the mechanics and airframe parts manufacturers I interviewed felt that, despite thousands of hours of "break-in time," the older-model Cessna 150 is probably the best buy on the market for the first-time owner who isn't a wizard mechanic or who has a close contact with an A&P mechanic. Airframe and engine parts are readily available, and the 100-hp Continental is a proven 1,200-hour (plus) powerplant. With the aircraft's simple spring gear

and manual flaps, there's little to wear out except tires and brakes, pulleys and cables, windshield and engine components. "Doggy" prices start at under \$3,000.

A recheck with the Cessna factory shows that the original Cessna 150 came out of basically the same jigs used when the 140A was phased out in 1950. Much of the heavy window-post structure of the 140A was moved to the aft door section as the main gear was moved back. "Omni-vision" wraparound windows came with the 1964 model while electric flaps, a swept tail and "bulging" cabin doors (about 2 inches more inside width) came with the 1966 models.

Parts availability is always a major problem with older aircraft. Veda Dyer Williams (AOPA 363830) and her son Stephen Dyer, president and general manager, respectively, of Univair Aircraft Corp., Aurora, Colo., supplied much of the background in our quest for data on older aircraft. Univair, a parts house that builds and rebuilds components for aircraft no longer in production, keeps 50 people busy with just one aim in life, "to keep older aircraft in the air."

The Univair team commented on economy two-placers. "We vote for the Ercoupe and the Cessna 120-140 without any nose-gear conversion. In that respect, we feel that most of the drastic conversions on older planes are not worth the cost. In most cases, these older planes were designed for just about so much performance, and there aren't many conversions that help enough to justify the cost.

"In connection with the Ercoupe and Cessna 120-140, not every part is available as an off-the-shelf item, but Cessna does furnish 'on order,' which means there is often a lengthy delay. Univair still has nearly all parts for the Ercoupe."

Stephen Dyer said that parts are available "for just about everything with the exception of the early 'rag wing' Luscombes." Luscombe models 8A to 8E were fabric winged, while the 8F was all metal.

"If we find enough market to justify it, we'll re-tool for the wings and lift struts on the earlier Luscombes," explained Dyer, "but when you make parts in 'onesies and twosies,' they become quite expensive."

A few Swifts are still available. One recent ad said, "Swift GC-1B 125. 1,348 TT, 643 SMOH. 249 STOH. Polished. No corrosion. Aux tank. \$3,975 or trade for PA-18 or similar."

The Swift, a delightful, racy-looking two-placer, is a real fun machine, singularly intolerant of groundloops. Electric/hydraulic gear and flaps, as well as a controllable prop on some of the larger engines (the Swift first came out with 85 hp, and that wasn't quite enough for a high field and/or a hot day), make it considerably more of a maintenance problem than the gear-down-and-welded types. Several mechanics interviewed expressed the opinion that the maintenance cost is doubled on retractable-gear older aircraft, "even if you have to pull



it up on a rope."

You have to be a contortionist to enter the older Cubs and Aeroncas if you're over 6 feet tall. The first J-3 that I ferried from Lock Haven to Los Angeles nearly 25 years ago (40 hours in five days) was extremely cramped in the front pit, and I traded limited over-the-shoulder visibility for a couple of inches more leg room in back. On recent Citabria deliveries, I've turned the back cushion around to get a couple of extra inches of leg room.

The old Aeronca 7AC, the "Knocker," is comfortable to fly, though somewhat cramped. The spongy landing gear makes a great cushion but presents a problem for pilots in knowing whether or not the gear is solidly on the ground. I let a former student, then a commercial pilot, groundloop me in a 7AC one hot day because the landing was so "soft" that neither of us were sure we were on the ground.

The Ercoupe is difficult to get in and out of. If it's an original model without rudder controls (there's a quick, approved fix for this), it'll drive almost any "conventional" pilot up the side of the cockpit. It is, however, ideal for amputees and paraplegics. Visibility is excellent.

A Four-Seat Bargain

When it comes to low-cost four-placers—\$5,000 or under for the "doggy" ones and \$6,000, more or less, for cleaner equipment—the list of available prospects really isn't very long. Nose-wheel ships include the early Cessna 172s, which began production in 1956, the Piper Tri-Pacer and high-time Cherokee 140-150s. Popular and available four-place taildraggers include the Stinson 108 and the Cessna 170 series.

There are additional low-production models with a built-in parts problem. These include the Luscombe Sedan, Bel-



The author's
four-place Cessna
170B, vintage 1952.

lanca 14-13 Cruisair, a few Aeronca Sedans and some of the early, high-time Mooney MK-20As. Some Navions built by North American and Ryan are drifting down into this price bracket—and take it from an old Navion aficionado, they're fine aircraft but do take a bit of maintenance, particularly in the plumbing department.

When it comes to picking your own four-placer, be practical when you take a good look at the manufacturer's specifications. Remember that these numbers were taken from a brand-new airplane under the best possible conditions. There were no hangar rash or minor dings, no accumulations of dirt or extra layers of paint, no nicks in the prop, nor a powerplant that doesn't put out as much "oomph" as it did new. Most older four-placers make excellent, roomy two-placers with full fuel, plenty of space and weight allowance for baggage, survival gear, avionics and even a couple of fold-up bicycles. Don't overdo it and try for two motorbikes.

As full four-placers, most older aircraft are not at their legal best. Take our 21-year-old 170B for example. Empty weight is 1,220 pounds, with a 2,200-pound gross weight. Thirty-seven gallons of fuel take 222 pounds, oil is 15 pounds, added nav/com equipment and strobes take another 25 to 30 pounds, while a survival/first-aid kit, tiedown ropes and stakes, flashlights and a pair of thermal blankets (thermal blankets also make an excellent cockpit cover to keep instruments out of sight and away from the heat) will add 10 to 15 pounds. Maps and letdown plates, if you carry them, add a few more pounds. Give or take a little and that leaves 700 pounds for people. Take away a percentage of performance because of age and you come up with a fine two-placer with no short-field or density-altitude problems.

As with the two-placers, the larger "cheapies" should be categorized into

nosewheel and tailwheel models. Fortunately for the newer pilots, the selection of nosedraggers is good, with either the fabric-covered Piper Tri-Pacer or the early metal Cessna 172-175 series readily available. Only 2,119 175s, Cessna's first use of a geared engine, were manufactured between 1958 and 1963, while the factory delivered 1,015 172s in 1960 alone.

Each high-winger has its advantages. The Tri-Pacer's economical four-cylinder Lycoming is modern in every way, while the 172 is all metal. Parts are little or no problem for either aircraft. I measured the length from the firewall to the back of the rear seat at 82 inches on the Tri-Pacer, 90 inches on the Stinson 108-1, and 92 inches on the 170B.

"Our vote for the four-place economy planes goes to the Stinson and the Cessna 170 series," explained Veda Williams. "Of course, those are taildraggers, and you have two good selections in the 172 and Tri-Pacer series. It's a tossup, since all four of these are good economy four-place jobs. If I had to pick between a 172 and the Tri-Pacer, I'd take the 172, but this happens to be a personal preference."

If your taste, background and opportunity points toward one of the taildraggers—the 170, Piper Pacer or the rare Luscombe Sedan—you're buying an airplane that you won't really lend to a friend with a brand-new private license unless he's been brought up with a tailwheel model.

Even though you're well aware that your older four-placer can be somewhat less than a bargain as far as dollars are concerned, there are still many things going for it. The improved flying techniques that you develop in your own ship can seldom be achieved while bouncing around from one plane to another. For example, the older 170B is notorious for its springy landing gear. It's taken me over 100 hours to learn to make fairly

consistent wheel landings, and I still blow one every so often.

This familiarity with the same airplane makes a safer, smoother operation just as long as the owner-pilot doesn't become complacent.

You learn the characteristics of your particular powerplant and its associated gauges. You can predict fuel consumption under any set of conditions within a few tenths of a gallon per hour. You'll know how much oil you'll burn and how many spare cans to carry on a long cross-country trip where oil in your brand and grade may not be available to you.

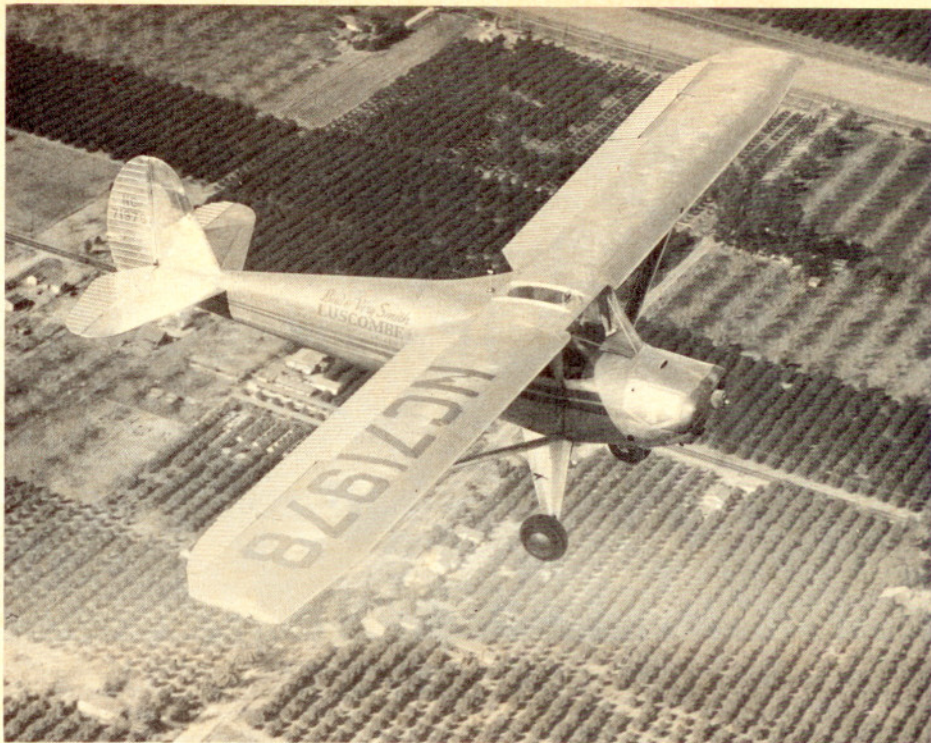
You'll develop a camaraderie with owners of similar-type aircraft and frequently join one of their "type clubs" that bring owners together. Newsletters from these clubs carry detailed information on problems and improvements made by other members, a swap column, and travel reports from people with the same type of aircraft. Frequently there are annual fly-ins.

Closing the Deal

When you've finally decided on "your" airplane, be sure and run a title search. AOPA's office in Oklahoma City is set up to do this quickly and inexpensively. Without a clear title, you're deeply involved in the papermill routine.

Even if you use your full name on the title application, if the bill of sale is made out to a shortened name, you're in trouble. Our bill of sale on the 1952 model was made out to Don Downie. We requested the new title to go to Ruth C. and/or Donald C. Downie and five months later we're still in correspondence with the FAA.

With purchase comes a new pride of ownership and its associated headaches. Gone are the days of rolling up to the gas pit, logging the Hobbs time, and penciling in any malfunctions. Now you



The Luscombe Silhouette, built in the late '40s, seats two and cruises at about 95 mph.

FLYING HIGH continued

pay for the gas, tiedown, and progressive maintenance; sweat out a check of your oil screens at every change; worry about open tiedowns when a storm comes through; and start up a whole new set of expense books to find out what the bird is really costing you.

On the plus side of the ledger are many new, worthwhile items. You're more or less free to take off and go when you want to, weather and budget permitting. You don't have to hurry back so that the next customer can take his turn. You'll find that you learn about cleaning and waxing—and even enjoy it. You'll learn what Tinnerman fasteners are and how to install them. You'll probably find a whole new group of pilots and polishers who seem content to spend their weekends at the airport puttering around their aircraft and perhaps logging an hour or two of flying. There are after-hours barbecues at the airport that end up as hangar-flying-and-lying sessions. As an owner, you're accepted by this group whether you have an old J-3 or one of the newer models.

Among FAA's voluminous regs, you'll soon learn of Part 43, which details preventative maintenance that "the holder of a pilot certificate . . . may perform on any aircraft owned or operated by him that is not used in air carrier service." Appendix A contains a 25-item guide to do-it-yourself repairs. Included are oil changes, lubrication not requiring disassembly, small repairs on nonstructural sheet metal, replacement of bulbs and

wiring. Essentially, you can refurbish just about anything not involving primary aircraft structure. Since you're going to be the person doing most of the flying, you'll find it compelling to stay within these guidelines. "Preventative maintenance," as defined in the regs, does not cover the whole spectrum of items that prevent you from flying.

When it comes time for an annual inspection, you'll probably find a smaller shop where the overhead is lower and the owner won't object if you get grease under your fingernails while helping—or just getting in the way, depending on how you do it. Smaller shops are usually well equipped for routine inspections of non-complex equipment and there's frequently a saving in money if you don't mind flying an hour or two away from the "high rent" metropolitan area. On the other hand, if you're talking about complex airplanes—even the older ones—with retractable gear, electric or hydraulic flaps, and controllable props, the smaller shop may not have a full line of test fixtures. This is particularly true in avionics.

While the economics of ownership are extremely debatable, particularly in today's climate of more fees and more restrictions, you still can't beat some of the advantages of owning your own little bird. If you stay within the monetary ballpark of the "cheapies," you can't be burned too badly.

Take it from an old-time renter, extra-training-command and ferry pilot. Having your own airplane is an experience you'll never forget—no matter what happens! □