arren Vest, AOPA 768885, knew he wanted a Piper Archer, but he had a problem. It's a problem most of us know about. It's called money. Like many another pilot, Vest had come to that point in his flying life when owning an airplane became important-psychologically, if not economically. The trouble was, for Vest as with many of us, the ante for a new airplane—even one that would pay for some of its costs through leasebackwas simply too high. And the traditional solution of going through Trade-A-Plane in search of a used airplane

netted nothing but frustration; a used airplane, after all, is just that. Used.

Enter William K. Caudell and Randal E. (Pat) Patrick, AOPA 391126, president and vice president, respectively, of Frederick Aviation, a Piper dealer in Frederick, Maryland. Caudell and Patrick knew a lot about Vest's problem before they ever met him, because, like many other fixed-base operators, they had felt the general aviation slump where it hurts most—in their ledgers. In the swelling number of red-ink entries there, they had seen the results of pilots like Vest giving up after their search for something between new/expensive and used/less-so proved fruitless. Caudell and Patrick say they knew that people wanted a certain kind of airplane, but it just couldn't be found, at least in large enough quantities. "I could sell every 150-hour 1982 Piper Warrior or Archer I could put on the line," says Caudell and then shrugs, "but there aren't any." As with Vest, Frederick Aviation was stuck between new and used.

Driven by the need to keep the doors open, Patrick and Caudell turned to an idea pioneered by the big-iron shops. "We knew," says Patrick, "that the kind of airplanes we needed—the

REPLAYING APIPER Not new, but not just used either

BY STEVEN L. THOMPSON

kind we knew we could sell immediately—weren't out there. So we decided we just had to make them."

They began with an airplane many FBOs shy away from as if it were a typhoid carrier—the Piper PA-38-112 Tomahawk. The process was simple to describe but difficult to implement: First, they found a run-out airplane; engine at TBO, interior ragged by thousands of student hours, radios in need of repair, paint—pathetic. Then they drew up a remanufacturing plan and schedule, trying to keep as much work in-house as possible. When they were done, they had a 1979 Toma-



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hawk that looked and flew like a brand-new one. It sold immediately, for three times what the FBO paid for it, and continues to make Frederick Aviation, its owner and the customers who rent it happy.

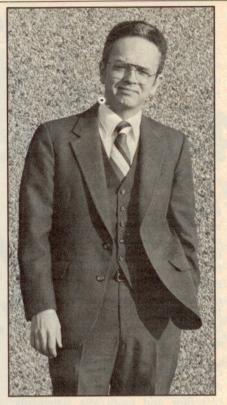
The specific finances for this airplane, as for the others that Frederick has done, remain proprietary information. But Caudell is definitive about a typical scenario for such a Tomahawk remanufacturing. "The airplane should be a '78 or '79; worth about six or seven thousand at TBO," he says. "Typically, we'd pick it up from some other FBO who's taken it in trade and doesn't know what to do with it. Then we do the engine; a complete overhaul [to Piper/Lycoming specs] lists for \$5,500, and while we're in there, we check everything. Then we get to the paint; we allow about \$2,300 for that. Then the interior work; we allow about \$800 to do everything-we have to refit the doors, reseal the windows and take every piece of plastic out for paint or replacement. We put in new carpets and new seat covers and padding from Airtex, which made its pattern for The remanufactured Archer's performance, looks and feel, in most cases, match the latest product of Piper's factory.



Tomahawks from our airplane. Finally, we allow about \$1,400 for fitting the new-style, larger gear and about \$1,000 for a 'slush fund' to do the gyro instruments or any radio work.'' Caudell grins as he adds up the list. "You wind up with an airplane worth about \$20,000, zero-time, instead of the \$38,000 you have to pay for a new one. It's a good deal."

Perhaps, a consumerist might say, and perhaps not. After all, only the engine is zero-time, and even in front of the fire wall, only those components showing wear beyond design specs are replaced. Furthermore, only the standard overhaul warranty applies, not a manufacturer's longer-term guarantee. Still, the airplane looks new, feels new and even smells new. These are powerful inducements. So much so that Frederick Aviation launched into more recycling projects after the Tomahawk, bringing the number done in 1983 to four. One of the four was an Archer II, rebuilt specifically to solve Warren Vest's problem.

N8389C is a 1976 PA-28-181, not the 1978 or 1979 model that both Vest and Caudell say would be ideal for the project, but when a 1979 model that had been under negotiation suddenly dropped from consideration after its owner decided he didn't want to sell, both parties settled on the older airplane. It fitted the profile perfectly; a run-out engine, a ragged interior, a faded paint job. Caudell's figures for a



Like most pilots, Warren Vest wanted a new airplane. Does his recycled 1976 Archer II substitute? "I'm a satisfied customer," he says.

typical rework call for purchase at around \$16,000, engine overhaul at \$5,750, paint at \$2,500, carpets, interior trim and seats for \$1,200 and \$1,000 for instrument work. With the FBO's profit tacked on, the typical recycled Archer II should sell, according to Caudell, for no less than \$31,644.

Vest's airplane went to him for an even \$32,000, so his experience fits the profile closely. He says that it was made clear to him from the start that things would happen fairly slowly after signing, and so they did-more so than even Frederick Aviation expected. First, there was the engine overhaul; although he had specified a Mattituck exchange engine, it turned out that none were available. Loathe to wait, he and the FBO decided upon a Piedmont Aviation overhaul, which would of course require the engine to be sent to Winston-Salem, North Carolina. Further, the paint would be done by Petersburg Aviation, in Virginia. Frederick would do the interior refurbishing. But even before the shop-hopping started, a new propeller had to be fitted when a lineboy bent the airplane's prop.

According to Vest, the performance of the FBO during these minor irritations demonstrated the key value of a fundamental piece of the transactiontrust. "The advice I have for anybody considering this," he says, "is that it helps to have some knowledge of the people you're dealing with." Because Vest had been dealing with Caudell and Patrick for two years, he says, he had come to respect them and their business practices. From the start of the aircraft purchase, recycling and leaseback process, he noted their straightforward warts-and-all treatment of the subject. As a result, when little things began to go wrong, the FBO had his



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confidence and impressed him by absorbing costs that might, in the hands of other FBOs, have been passed on to him.

These little things inevitably showed up when the airplane returned to the line at Frederick, seven weeks after purchase. Although the 1982 paint scheme and interior satisfied everyone (including Vest's wife, who had picked them out) in terms of quality, the paint shop had painted the pitot head. And although the FBO's mechanics passed on this after pressure checks of the system, Vest and others had trouble with bizarre airspeed readings. Finally, the FBO took care of the problem with a clean pitot head. Further, after the Piedmont overhaul, a duff alternator had to be replaced-and was, at no expense to Vest.

And the big things? So far, Vest declares himself a "satisfied Frederick Aviation customer" and notes that his cash-flow and profit/loss statements are exactly in line with Caudell and Patrick's predictions. His airplane, he says, attracts a brisk rental business, and when he flies it, he is satisfied that he did the right thing. The Archer's performance, looks and feel, in most cases, match the latest product of Piper's factory at Vero Beach.

And in that observation lies a problem for the future of this whole concept. If recycling is to take off on a big scale, several obstacles will have to be overcome. First there is the traditional relationship of franchised aircraft dealer and manufacturer. Frederick Aviation, say its owners, cannot simply convert itself to being a remanufacturing shop, because its agreement with Piper requires it to walk a well-defined line in sales, selling a certain number of new aircraft each year to qualify for its franchise. And yet, the local market can absorb only so many aircraft, new or used. That means each franchised FBO wishing to engage in recycling aimed at putting sales/leaseback aircraft on its books must forecast its market very carefully indeed, in order to avoid an awkward franchise situation. Thus, one obstacle might be considered to be the very nature of this relationship; perhaps it is time for the manufacturers to consider redefining the demands of a franchise.

The second obstacle is financing. Asked whether an individual should

pursue this recycling path on his own, both Caudell and Vest answered no. and for surprisingly similar reasons. The first is money; no matter how you cut it, for instance, the ante for getting even a run-out Archer still is considerable, and as Caudell notes, "if a guy can afford to write a check for that much, he probably shouldn't be trying to rebuild a tired airplane to begin with." Then there is that question of simply making it all happen. The logistics of recycling are formidable, and it is much easier to deal through a single source as a customer-à la Vest and Frederick Aviation-than to fight each negotiating battle alone. It can, of course, be done-and is, all the timebut if a buyer connects with the right fixed-base operator, many of the niggles that are attached to any major airframe and engine work can be handled by the FBO.

On the other hand, connecting with the right FBO clearly is central to the success of a venture such as Vest's, and this matter of rightness is the third and most difficult obstacle to overcome if light aircraft recycling is to become a significant part of the nation's aviation business. If you listen to enough FBOs, you eventually can believe that most of them secretly think of most of their customers as ignorant troublemakers, and, naturally, the same goes if you listen to enough customers talking about FBOs. Because of the potential liability problems inherent in remanufacturing and because so much of how such a transaction works out depends on trust-the bank's trust of the ultimate value of the rebuilt airplane and the buyer's trust in the FBO, for example-all parties involved clearly must work out relationships that can survive unforeseen contractual or mechanical problems.

If all or most of that happens, it's possible to consider what FBOs such as Frederick Aviation and customers such as Warren Vest are doing as breathing life back into the industry. However, even if such speculation proves to be too optimistic, there is a less ambitious but still encouraging view of their transaction. In it, at least one Archer has been converted from aluminum ramp cover to airplane and at least one pilot from renter to owner. Such small steps are often the basis for large leaps.